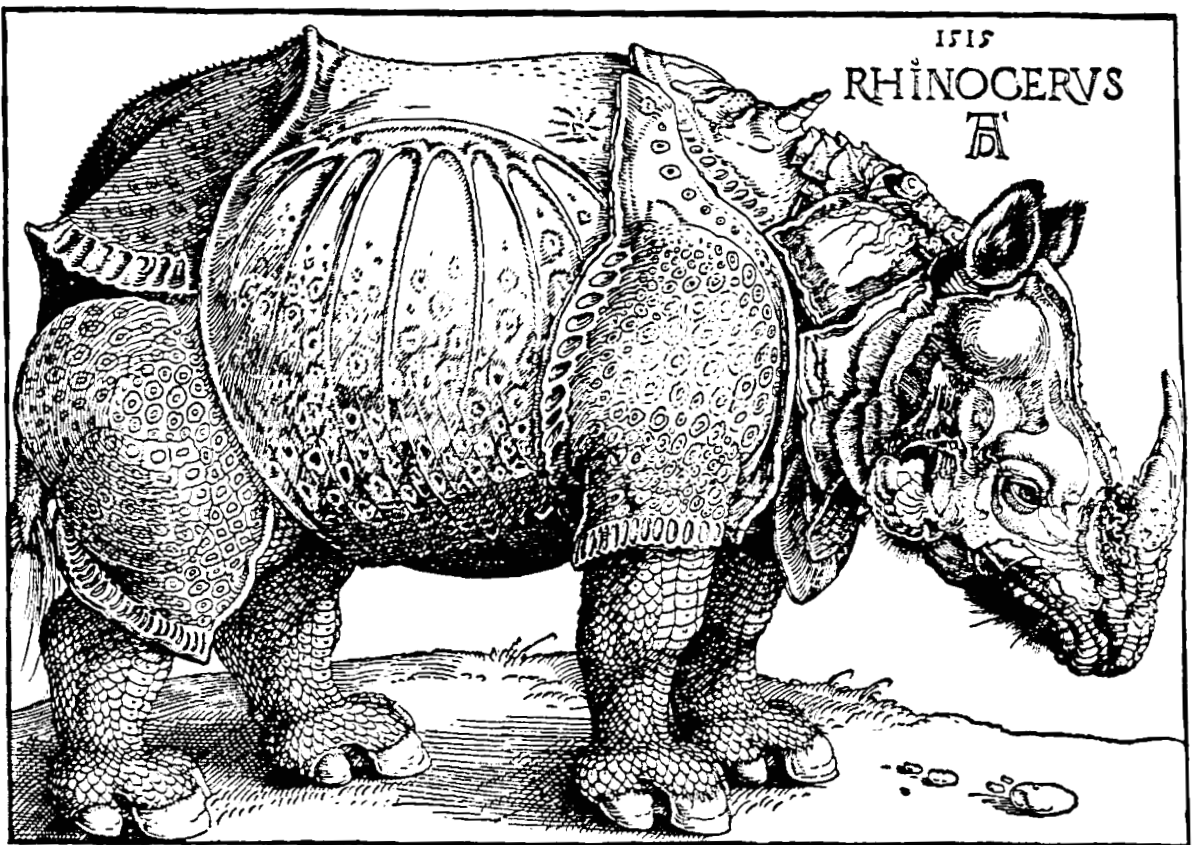


# THE RHINOCEROS IN CAPTIVITY

by L.C. Rookmaaker



SPB Academic Publishing bv

# **THE RHINOCEROS IN CAPTIVITY**

**A list of 2439 rhinoceroses kept from  
Roman times to 1994**

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# 1. Introduction

'To see the Rhinoceros (a friend told me), I decided to take a walk.' The German author C.F. Gellert wrote these lines when a rhinoceros was being shown in the town of Leipzig in 1747. How many people have taken such a walk and returned home, thrilled and educated by seeing a rhinoceros in a cage, or a baby rhinoceros jumping around the enclosure, or a group of white rhinos peacefully grazing in a paddock? The rhinoceros has always fascinated us by its prehistoric bulk, its massive power and its lack of conventional beauty. Through the ages, many individual rhinoceroses have been kept by human beings, sometimes to entertain, sometimes to educate.

It was my aim to collect information about each individual rhinoceros which has been

kept in captivity from the earliest times to the present. This is, of course, a quite impossible task, because I necessarily had to depend on the records left by our ancestors. I had three reasons for attempting to discover some details about every single rhinoceros. First, a rhinoceros exhibited in a zoo potentially helps to increase our knowledge of the species. How much would we know today about the reproductive behavior, morphological variations or anatomical details of rhinoceroses if we had only seen the animals in the wild? How many people have become interested in the species after observing a rhinoceros in an enclosure at a zoo? I am not really sure, but perhaps the fact that I saw a black rhinoceros at Artis Zoo in Amsterdam or an In-



*Fig. 1. Sumatran rhinoceros 'Mahatu' at Los Angeles Zoo, November 1992.*

dian rhinoceros in Antwerp when I was a child, subconsciously kindled my decision to study the animal, and many other people may have had similar experiences. The second reason for studying the captive population of rhinoceroses is the alarming decline of the animals in the wild. If the rhinoceros would disappear from its original habitat through poaching and human pressures, there is at least a chance of keeping the species alive in captivity. The rhinoceros is generally a slow breeder, and it needs an all-out effort to maintain even existing numbers. It is possible that history can teach us valuable lessons so that we can avoid future mistakes. The third reason is simply a personal fascination with the historical record. Much of the information in this book is elusive, but it has given me great pleasure to try to discover as many details as possible.

The term 'captivity' is interpreted in rather a broad sense. It is obvious that a list of animals in a captive situation must include those kept, for example, in zoological gardens, safari parks, travelling menageries, circuses, and private collections. However, the definition is less clear when rhinos are kept within their own area of distribution. When, for instance, a group of rhinos is kept in an enclosure of a thousand acres, this group would obviously be captive if the enclosure were located in Europe or America. However, if that enclosure were in Africa or Asia, bordering a national park, there could be disagreement as to whether the animals kept there would be captive, semi-wild or wild. It is very difficult to judge each situation on its own merits without personal knowledge of the area or the background of the case. I have been liberal in including some information about such groups of rhinos kept on private land within the area of distribution of the species, although, generally, the animals have not been counted in the totals.

The rhinoceros has been well served by historians and record keepers. In the present survey, I could build on a solid foundation consisting of information contained in the literature, and, in particular, the papers by Reynolds and the studbooks, as well as personal communications with a great number of people interested in animals and the history of animal exhibits. Richard J. Reynolds III of Atlanta, Georgia, is a retired lawyer with a particular interest in circuses and also in other ways of exhibiting wild animals. He compiled all the available records on the rhinoc-

eros in captivity and published the results in a series of papers in the *International Zoo Yearbook* of London in the early 1960s. Why he decided to focus on the rhinoceros in favor of elephants or giraffes (although he also wrote about those animals), remains a mystery in his publications. My own correspondence with Richard Reynolds started in about 1973 and has continued ever since. Many valuable data and much encouragement have reached me from the other side of the Atlantic, thanks to our shared interest. Reynolds studied the history of circus owners in the United States, which I have always found to be a particularly difficult and elusive subject. All the facts about rhinoceroses in American circuses or travelling menageries have been provided by Reynolds from his various sources.

The studbooks of the various species provided data for rhinoceroses that, more recently, have been kept in a captive situation. The studbook for African black and white rhinoceroses has been kept by Berlin Zoo since 1966, that for the Indian rhinoceros by Basel Zoo since the late 1960s, and that for the Sumatran rhinoceros by the International Rhino Foundation. These studbooks are published with a certain regularity. They contain many valuable data on the specimens that were alive in the period during which the studbook was kept. There is a small gap between the publication of the lists of captive rhinos by Reynolds in 1960 and 1964, and the start of the studbooks. A few specimens which arrived and died during those few years in the 1960s were not recorded in either of these sources.

In 1993, I tried to compile the information contained in these various sources: the studbooks, the papers by Reynolds, the literature in general, and personal communications. The



Fig. 2. Pair of White rhinoceros at Berlin Zoo, 26th June 1965.



Fig. 3. Black rhinoceros 'Toto' at St Louis, 1993.

next step was to write to all collections of animals which had exhibited the rhinoceros, in order to check these data and possibly add to my information. In October 1993, therefore, I sent out 572 general inquiries regarding the completion and rectification of the available data. Of these inquiries, 267 were sent to collections known to have shown at least one rhinoceros: I received 109 replies (41%). A further 305 letters were sent to places where a rhinoceros could have been exhib-

ited, but for which no information was available. I received 75 replies (25%) from this latter category, including a few with information on hitherto overlooked specimens.

When I had compiled all this information, I found that there were still quite a number of questions and uncertainties. During the latter stages, I have been greatly assisted by Sgt. Marvin Jones, the then Registrar of San Diego Zoo. He visited many collections all over the world and studied the local records, and his encyclopedic mind can still recall some specific data from different specimens. He has contributed enormously to filling in the blanks. In various other ways, I have also benefitted from Ken Kawata's knowledge of Japanese zoos, from Clin Keeling's of historical records, and from John Edwards' of European zoos and photographic records.

The present list has details of about 2439 individual specimens belonging to one of the five living species of rhinoceros (Table 1). The Indian rhinoceros (*Rhinoceros unicornis*) has been consistently exhibited in small numbers from the 16th century up to the present. The black rhinoceros (*Diceros bicornis*) was first



Fig. 4. Indian rhinoceroses at Basel Zoo.



Fig. 5. White rhinoceroses at Whipsnade

imported in 1868, and has been shown regularly ever since. The Javan rhinoceros (*Rhinoceros sondaicus*) is a very rare exhibit, while the Sumatran species (*Dicerorhinus sumatrensis*) was imported during the second half of the 19th century, and again in recent years. The white rhinoceros (*Ceratotherium simum*) is now the most common species, but this is a recent development since the first specimen was only seen in 1946.

The rhinoceros is not the most photogenic of animals, and, as such, it is remarkable that so many images have been taken throughout the years. In the present work, a selection of the available material, both old and new, has been made. Some of the pictures are of rather poor quality, and they have only been included to complete the historical record and to show what has been preserved. Most of the recent pictures were supplied by zoos in response to the questionnaire, and I am very grateful for their cooperation and interest.

### What to expect

You should be able to find some information about each and every rhinoceros ever kept in captivity. Actually, I would prefer to use the English equivalent of the German 'Menschen-obhut', 'in human hands', or 'under human care', in order to avoid the cage or enclosure idea associated with captivity. There is no limit to time or place. It should not matter whether the rhinoceros was kept in 2000 BC or in 1990 AD, in China, Siberia, Iceland or the Cape of Good Hope. You can expect to find the date of arrival, date of death, gender, name and most important happenings during its life. If the zoo in, for example, Amsterdam or Rangoon exhibited rhinos, there is also information on which species, how many,

when, etc. If you saw a rhinoceros in a 'Tarzan' movie, it could be that this list will give you some of its background.

Of course, this book will fall far short of your (and my) expectations. Some rhinoceroses, probably quite a large number in fact, do not figure here, simply because nobody recorded their presence on paper or in art, while others have simply escaped my notice. For the historian or scientist it is a sad fact that it is very hard to cover any subject completely, unless it is very carefully and precisely demarcated. I would be pleased to hear about any shortcomings in this list.

Kees Rookmaaker

Easter 1997

### How to use this book

#### Arrangement of records

There are five living species of rhinoceros. The records of captive specimens of each species are arranged each in a separate chapter. Some records from Roman times and from other old civilizations are mentioned in Chapter 3. A few statistics on demography and reproduction are summarized in Chapter 2.

Each of the Chapters 4 to 8 on the five species starts with a short introduction on the maintenance of that particular species, with information on its history in captivity, sub-specific classification, origin of imports and longevity. The introduction in each chapter is followed by:

1. A table of *Collections where the species has been exhibited*, listing the number of collections by continent and country. This table also shows when and in which country the animal was first exhibited in each continent, and in which collection in each country. The place with the largest number of rhinos throughout the ages has also been listed, but only when there were more than five specimens; smaller lists have been deleted.
2. A table of *Population changes* showing the number of specimens imported, born, and those that died within each decennium since its first exhibition. Changes in the captive population can easily be studied from these tables.
3. A *Chronological list of all known specimens* giving the historical details of each specimen in abbreviated form. The main list is arranged by collection, and specimens which were fre-

stated as, 'To ...' / 'From ...' with the name of the town. If it was imported from the wild, this is always written in full to avoid confusion ('Imported from...', 'Caught in ...').

*† in the entry of an individual rhinoceros after a date means: the animal died at that time in that collection.*

### Acknowledgments

In many ways, this book is the culmination of a long standing interest. Throughout the years, I have received much encouragement and active assistance from a number of people with similar ideas. Although there is little reward in being mentioned in a section of acknowledgments, I hope that it will give them an idea of the extent of my gratitude. In alphabetical order, my thanks go to Peter van Bree (Amsterdam, The Netherlands), the late Tim H. Clarke (Ashford, UK), Michael Dee (Los Angeles, USA), John Edwards (London, UK), Marvin L. Jones (San Diego, USA), Ken Kawata (Kansas City, USA), Clin Keeling (Guildford, UK), Heinz-Georg Klös (Berlin, Germany), Dennis R.H. Levy (Bournemouth, UK), Esmond Bradley Martin (Nairobi, Kenya), Jim Monson (Tourette-Levens, France), Florence Pieters (Amsterdam, The Netherlands), Herman Reichenbach (Hamburg, Germany), Richard J. Reynolds (Atlanta, USA), Lothar Schlawe (Berlin, Germany), Marjorie Shaw (San Diego, USA), Kathleen Tobler (Basel, Switzerland). Without the patience and understanding of these people in my continuous quest for more data, this book would look very different today.

Special assistance in specific cases was readily given by many people, among whom I am happy to mention: John Bank (Lorena, Texas, USA), Susanta Bhattacharyya (Zoological Gardens, Calcutta, India), Bernhard Blaszkiewicz (Tierpark Berlin-Friedrichsfelde, Germany), L.E.M. de Boer (Apenheul, Apeldoorn, The Netherlands), Herb Clement (former director of Central Park Zoo, New York, USA), D.H.M. Cumming (WWF Multispecies Animal Production Systems Project, Harare, Zimbabwe), J.C. Daniel (former Curator of Bombay Natural History Society, India), F. Dieterlen (Staatliches Museum für Naturkunde, Stuttgart, Germany), T.J. Foose (International Rhino Foundation, Columbus, USA), Gwyn Griffiths (Crewe, UK), Barbara Herzig (Naturhistorisches Museum, Vienna, Austria), Bengt

Holst (Copenhagen Zoo, Denmark), D. Philip King (Assiniboine Zoo Park, Winnipeg, Canada), Andrew Kitchener (National Museums of Scotland, Edinburgh, UK), Georges Lenglet (Institut Royal des Sciences Naturelles de Belgique, Brussels, Belgium), the Assistant Director of the Government Museum (Madras, India), P. Newbegin (Help A Child of India, Bangalore, India), G. Nogge (Cologne Zoo, Germany), Julio Perla (Monkey Jungle, Miami, USA), Mark Sorrell (Benfleet, UK), Donald W. Wixom (Sunset Zoological Park, Manhattan, USA), F.J. Zeehandelaar (New Rochelle, USA).

Many people took the time and trouble to respond to my questionnaire of captive rhinos in 1993. In some cases, those responsible obviously went to a lot of trouble to photocopy the available material, look for old records, or find suitable pictures. I trust this book will show them that their time was well spent, and that hopefully I have done justice to their records. At the end of this chapter, there is a list of all collections that exhibited a rhinoceros, in which those that responded to the questionnaire are marked by an \*, a simple mark for special gratitude. The staff of those collections that never exhibited a rhinoceros, but who still wrote to me, are listed separately below.

Mistakes will certainly have been made in the transfer of information or on decisions about names and dates. I take the responsibility for all of them.

### List of collections replying in 1993-1994 that they never owned a rhinoceros:

Austria	Innsbruck, Alpen Zoo
Belgium	Ieper, Bellewaerde Park
Belize	Belize City, The Belize Zoo
Bermuda	Bermuda Aquarium, Natural History Museum and Zoo
Canada	Bowmanville, Bowmanville Zoo Edmonton, Valley Zoo Charlesbourg, Jardin Zoologique du Quebec Shubenacadie, Provincial Wildlife Park Vancouver, Stanley Park Zoological Gardens
Chile	Santiago, Santiago Zoo
Czech Republic	Plzen, Zoologicka a Botanicka Zahrada
Denmark	Odense, Odense Zoo
Dubai	Dubai, Zoological Gardens
Germany	Bochum, Tierpark

Finland	Rostock, Zoologischer Garten		Colwyn Bay, Welsh Mountain Zoo
France	Helsinki Zoo		Cricket St. Thomas, Westcountry Wildlife Park
	Montpellier, Parc de Lunaret		Dudley, Dudley & West Midlands Zoological Society
	Mulhouse, Parc Zoologique et Botanique		Great Yarmouth, Thrigby Hall Wildlife Gardens
Ghana	Strasbourg, Parc Zoologique Orangerie		Huntingdon, Hamerton Wildlife Centre
Hong Kong	Kumasi, Kumasi Zoological Gardens		Matlock, Riber Castle Wildlife Park
India	Zoological and Botanical Gardens		Twycross, Twycross Zoo
	Ahmedabad, Kamla Nehru Zoological Garden		Abilene, TX, Abilene Zoological Society
Israel	Haifa, Biological Institute	USA	Apple Valley, MN, Minnesota Zoo
Netherlands	Amersfoort, Dierenpark		Como, MN, St. Paul's Zoo
	Apeldoorn, Apenheul		Erie, PA, Erie Zoo
	Rhenen, Ouwehands Dierenpark		Grand Rapids, MI, John Ball Zoological Garden
Russia	Ekaterinburg, Zoopark		Naples, FL, Jungle Larry's Zoological Park
	Kishinev, Zoo		Providence, RI, Roger Williams Park Zoo
	Novosibirsk, Zoo		Racine, WI, Racine Zoological Society
Saudi Arabia	Riyadh, King Khalid Wildlife Research Center		Roanoke, VA, Mill Mountain Zoo
Slovakia	Bojnice, Zoological Garden		Rochester, NY, Seneca Park Zoo
Spain	Cantabria, Zoologico de Santillana del Mar		Santa Ana, CA, Santa Ana Zoo
	Gran Canaria, Los Palmitos, Maspalomas		Seattle, WA, Woodland Park Zoological Gardens
	Jerez de la Frontera, Zoo Jerez		Syracuse, NY, Burnet Park Zoo
Sweden	Eskilstuna, Parken Zoo		Tacoma, WA, Point Defiance Zoo & Aquarium
Switzerland	Gossau, Walter Zoo		Utica, NY, Utica Zoo
Trinidad	Port-of-Spain, Zoological Society of Trinidad & Tobago		West Palm Beach, FL, Dreher Park Zoo
Ukraine	Nikolaev, Nikolaev Zoo		
United Kingdom	Alfriston, Drusillas Park		
	Banham, Banham Zoo		
	Blair Drummond, Safari and Leisure Park		
	Chessington, World of Adventure		
		Uzbekistan	Tashkent, Zoopark

## List of collections which exhibited a rhinoceros

### Arranged by country

Species exhibited are abbreviated as follows:

CS	<i>Ceratotherium simum simum</i> (Southern White rhino)
CSC	<i>Ceratotherium simum cottoni</i> (Northern White rhino)
DB	<i>Diceros bicornis</i> (Black rhino)
DS	<i>Dicerorhinus sumatrensis</i> (Sumatran rhino)
RS	<i>Rhinoceros sondaicus</i> (Javan rhino)
RU	<i>Rhinoceros unicornis</i> (Indian rhino)

X stands for specimens of unknown species listed in Chapter 3.

The number of specimens exhibited follows the abbreviated species name in the last column.

\* Collections with this mark responded to the 1993 questionnaire or have otherwise volunteered information about their rhinoceroses.

Country/place	Name of collection	Species exhibited
Abu Dhabi, UAE		
Al Ain	Zoological Park and Aquarium	CS 3, CSC 1
Afghanistan		
Kabul	Coll. Amir Abdul Rahmann	DS 1

<i>Country/place</i>		<i>Name of collection</i>	<i>Species exhibited</i>
<b>Argentina</b>			
Buenos Aires		Circo Fuentes Gasca	CS 1
Buenos Aires	*	Jardim Zoologico	DB 8
La Plata		Zoologico La Plata	CS 2, DB 1
Margarita		Unidentified	CS 3
Mendoza		Zoological Gardens	DB 1
<b>Australia</b>			
Adelaide	*	Adelaide Zoo	DB 3, RS 1
Dubbo	*	Western Plains Zoo	CS 12, DB 15
Melbourne		Zoological Board of Victoria	DB 3
Perth	*	Zoological Gardens	CS 2, DB 1, DS 1
Queensland		Ashton's Animal Kingdom	DB 1
Sydney	*	Taronga Zoo	CS 2, DB 23
Werribee	*	Zoological Gardens	CS 3
Winnellie		Tipperary Sanctuary	CS 2
<b>Austria</b>			
Salzburg	*	Salzburger Tiergarten Hellbrun	CS 4
Vienna	*	Schönbrunner Tiergarten	DB 5, RU 1, RS 1, DS 2
<b>Bangladesh</b>			
Dhaka		Coll. Matthew Day	RU 1
<b>Belarus</b>			
Grodno		Grodno Zoo	DB 1
<b>Belgium</b>			
Antwerp	*	Jardin Zoologique	CS 5, CSC 2, DB 5, RU 13, DS 4
Genk		Limburgse Zoo Zwartberg	CS 6
Planckendael		see Antwerp	
Sprintmont		Unidentified	CS 1
<b>Brazil</b>			
Belo Horizonte	*	Fundação Zoo-Botanica	CS 2
Porto Alegre		Jardim Zoologico	DB 1
Rio de Janeiro	*	Jardim Zoologico	CS 2, DB 5
Sao Leopoldo		Parque Zoologico do Rio Grande	CS 2, DB 3
Sao Paulo	*	Fundação Parque Zoologico	CS 2, DB 4, RU 1
<b>Bulgaria</b>			
Sofia		Zoological Gardens	CS 3
<b>Burma</b>	see	Myanmar	
<b>Cambodia</b>			
Angkor-Vat		Early civilization	RS ?
<b>Canada</b>			
Aldergrove		Vancouver Game Farm	CS 5
Calgary	*	Calgary Zoological Society	CS 3
Edmonton		Alberta Game Farm	CS 2
Granby	*	Société Zoologique de Granby	CS 2, DB 7
Hemingford		Parc Safari Africain	CS ?
Penticton		Okanangan Game Farm	CS 1
Rockton	*	African Lion Safari	CS 5
St. Félicien	*	Zoo Sauvage	DB 2
Toronto	*	Metro Toronto Zoo	CS 9, DB 2, RU 5

<i>Country/place</i>	<i>Name of collection</i>	<i>Species exhibited</i>
<b>China</b>		
Beijing	Zoological Gardens	CS 2, DB 5, RU 4
Canton	Zoological Gardens Kwangchow	CS 2
Chengdu, Sichuan	Zoological Gardens	DB 2
Choushun	Zoological Gardens	CS 2
Early specimens		X 19
Guangzhou	see Canton	
Harbin	Zoological Gardens	CS 2
Kwangchow	see Canton	
Peking	see Beijing	
Seito	see Chengdu	
Shanghai	Zoological Gardens	CS 3
Shenyang	Zoological Gardens	CS 3
Taiyuan	Zoological Gardens	CS 3
Tensin	Zoological Gardens	CS 3
<b>Colombia</b>		
Medellin	Hacienda Napoles	CS 2
<b>Croatia</b>		
Osijek	Zoological Gardens	DB 1
Zagreb	* Zoological Gardens	CS 2, DB 4
<b>Cuba</b>		
Havana	Zoological Gardens	CS 7, DB 2
<b>Czech Republic</b>		
Dvur Kralove	Zoological Gardens	CS 18, CSC 13, DB 33, RU 5
Lesna	* Zoological Gardens and Castle	CS 2, DB 2
Liberec	* Severoceska Zoologicka Zahrada	CS 4, RU 1
Ostrava	Zoologicka Zahrada	CS 2
Prague	Zoologicka Zahrada	CS 3, DB 3
Usti nad Labem	Zoologicka Zahrada	CS 7
<b>Denmark</b>		
Aalborg	* Aalborg Zoo	CS 5
Bandholm	Knuthenborg Safari Park	CS 6
Copenhagen	* Zoologiske Have	CS 9, DB 2, DS 1
Givskud	Lovepark Safariland	CS 5
<b>Dominican Republic</b>		
Santo Domingo	Parque Zoologico y Botanico	DB 2
Santo Domingo	Parque Zoologico Nacional, Zoodom	CS 11
<b>Egypt</b>		
Alexandria	Zoological Gardens	CS 1
Alexandria	Specimens in Roman Empire	X 2
Cairo	Giza Zoological Gardens	CS 5, DB 8, RU 2
Cairo	Early specimens	X 2
<b>Estonia</b>		
Tallinn	Tallinn Zoo	DB 2
<b>Europe</b>		
Early specimens		DB 2
Travelling menageries		CS 11, RU 4



<i>Country/place</i>		<i>Name of collection</i>	<i>Species exhibited</i>
Travelling menagerie		Planet Menagerie	RU 1
Travelling menagerie		Bach Menagerie	DB 1
Wingst		Baby Zoo	CS 1
Wuppertal	*	Zoologischer Garten	DB 2
<b>Greece</b>			
Athens		Circo de Madrid	CS 1
<b>Hungary</b>			
Budapest	*	Zoological Gardens	CS 2, DB 2, DS 1
Veszprem	*	Kittenberger Zoo	CS 1, DB 1
<b>India</b>			
Bangalore		Lal Bagh Park	RU 1
Baroda		see Vadodara	
Barpali		Coll. Rajah of Barpali	RU 1
Bhubaneswar		Nandankanan Biological Park	RU 2
Bombay		Zoological Gardens	RU 3
Calcutta		Alipore Zoological Gardens	RU 15, RS 2, DS 5
Calcutta		Barrackpore Park	RU 5
Calcutta		Coll. Nabab of Chittpour	RU 1
Calcutta		Coll. Raja Rajendra Mallick	RU 2
Calcutta		Coll. Maharajah of Burdwan	RU 1
Calcutta		Harbor (transit)	DS 2
Calcutta		Hugli Trading Post	RU 1
Calcutta		Jamrach (dealer)	RS 1
Calcutta		Rutledge (dealer)	RS 1
Calcutta		Coll. Wajid Ali Shah, King of Oudh	RS 1
Chandigarh		M.C. Choudhery Zoological Park	RU 3
Delhi		Zoological Gardens	DB 5, RU 7
Early specimens			RU 9, RS 2
Gauhati	*	Assam State Zoo	CS 1, RU 72
Guwahati		see Gauhati	
Gwalior		Coll. Maharajah of Gwalior	RU 1
Hyderabad	*	Nehru Zoological Park	RU 6
Jaipur		Zoological Gardens	RU 1
Kanpur		Allen Forest Zoo	RU 7
Kassimbazar		Private collection	RU 1
Lucknow		Coll. King of Oudh	RU ?
Lucknow		Zoological Gardens	RU 4
Madras		Zoological Gardens	RU 2, DS 1
Mysore		Sri Chamarajendra Zoo	CS 3, DB 11, RU 7
New Delhi		see Delhi	
Patna		Sanjay Gandhi Biological Park	RU 6
Poona		see Pune	
Pune		Royal Menagerie	RU 1
Trivandrum		Zoological Gardens	RU 4
Udaipur		Zoological Gardens	RU 1
Unknown Zoo			RS 1
Vadodara		Coll. Maharajah of Baroda	RU 2
Vadodara		Zoological Gardens	DB 2, RU 1
<b>Indonesia</b>			
Bogor		Presidential Palace	DS 1
Bogor		Taman Safari Indonesia	CS 7, DS 3
Jakarta		Ragunan Zoological Gardens	CS 3, DS 2
Java		Early collections	RS 9
Sepilok		Capture operation	DS 8
Sumatra		Atjeh, Sultan Iskander	DS 1

<i>Country/place</i>	<i>Name of collection</i>	<i>Species exhibited</i>
Sumatra	Coll. Max Peser	DS 1
Sumatra	Coll. Coenraad-Uhlig	DS 1
Sumatra	Danish Sumatran Rhino Expedition	DS 3
Sumatra	Coll. Harry Gillmore	DS 3
Sumatra	Sumatra Rhino Capture Operation	DS 18
Surabaya	Kebun Binatang Surabaya	CS 2, DS 2
<b>Iran</b>		
Esfahan	Early specimens	X 3
Teheran	Zoological Gardens	DB 7
<b>Ireland</b>		
Dublin	* Dublin Zoo	CS 5, DB 7, RU 2
<b>Israel</b>		
Jerusalem	Biblical Zoological Garden	DB 2
Ramat-Gan	* Zoological Centre, Tel Aviv	CS 27, DB 2
Tel Aviv	see Ramat-Gan	
<b>Italy</b>		
Belpasso	Parco Zoo di Sicilia	CS 1
Bussolengo	Circo Medrano	CS 4
Fasano	Zoosafari di Fasano	CS 3, DB 1
Langato	Autosafari - Parco Zoo del Garda	CS 5
Milan	Dealer collection	RU 1
Naples	Giardino Zoologico	DB 10
Pistoia	Giardino Zoologico 'Citta di Pistoia'	CS 2
Rome	Giardino Zoologico	CS 2, DB 6, RU 1
Rome	Grunvald Zoo	CS 1
Rome	Safari Park	CS ?
Rome	Specimens of Roman Empire	X 12
Torino	Giardino Zoologico	CS 2, DB 2
Verona	Langato Safari	DB 2
<b>Japan</b>		
Fujiwara, Shizuoka Pref.	Fuji Safari Park	CS 14
Fukuoka, Kyushu Island	Fukuoka Zoo	CS 2, DB 3
Gunma Pref.	Gunma Safari World	CS 13
Himeji City	Himeji Central park	CS 9
Hiroshima	Asa Zoo	DB 14
Hitachi	Kamine Zoo	DB 9
Hokkaido Pref.	Haiji Farm	CS 1
Iwaki City	Iwaki World Safari	CS 1
Izu, Shizuoka Pref.	Waling Safari Izu Bio Park	CS 5
Kagoshima	* Hirakawa Zoological Park	CS 2, DB 3
Kamine	see Hitachi	
Kanazawa	see Yokohama	
Kobe	Oji Zoo	CS 2, DB 8
Kumamoto	Kumamoto Zoo	CS 3, DB 4
Kyushu, Anjin-in-Cho	Kyushu African Lion Safari	CS 21
Miyazaki	Miyazaki Safari Park	CS 17
Morioka City	Zoological Gardens	CS 3
Nagasaki	Nagasaki Bio Park	CS 2
Nagasaki	Nagasaki Safari Park	CS 4
Nasu	Nasu Safari Park	CS 3
Nagoya	Higashiyama Zoo	DB 12, RU 4
Okinawa	Okinawa Kodomonoki Park	CS 1
Onuma, Hokkaido Pref.	Subaru Park	CS 3
Osaka	Tennoji Zoo	DB 10, DS 1

<i>Country/place</i>	<i>Name of collection</i>	<i>Species exhibited</i>
<b>Sapporo</b>	Maruyama Zoo	DB 1
<b>Sendai City</b>	Yagiya Zoological Park	CS 3
<b>Shizuoka</b>	Municipal Nihondaira Zoo	CS 2
<b>Susono City</b>	see Fujiwara	
<b>Tobu, Saitama Pref.</b>	Tobu Zoo	CS 2
<b>Tohoku</b>	Safari Park	CS 3
<b>Tokyo</b>	Tama Zoological Park	RU 4
<b>Tokyo</b>	* Ueno Zoo	CS 2, DB 4
<b>Toyohashi</b>	* Toyohashi Zoo and Botanical Park	CS 3
<b>Travelling Shows</b>	Circus	DB 3
<b>Wakayama Pref.</b>	* Adventure World	CS 20, DB 1
<b>Yamaguchi Pref.</b>	Akiyoshidai Safari Park	CS 6
<b>Yokohama</b>	Kanazawa Zoo	CS 2, DB 3, RU 2
<b>Yoshikawa</b>	Unidentified	DB 1
<b>Kazakhstan</b>		
<b>Alma Ata</b>	Zoopark	DB 3
<b>Kenya</b>		
<b>Lake Nakuru National Park</b>		CS ?
<b>Lewa Downs Ranch</b>	*	CS 5, DB 9
<b>Maasai Mara Game Reserve</b>		CS 10
<b>Meru National Park</b>		CS ?
<b>Nairobi</b>	* Animal Orphanage	DB 2
<b>Nairobi</b>	* David Sheldrick Wildlife Trust	DB 8
<b>Nanyuki</b>	Ol Pejeta Game Reserve	DB 2
<b>Ngare Seroi Sanctuary</b>	*	CS 10, DB 26
<b>Nyeri</b>	* Solio Ranch	CS ?, DB ?
<b>Rumuruti</b>	Farm of Carr Hartley	CSC 2
<b>Rumuruti</b>	Coll. Stanton	DB 1
<b>Voi</b>	Coll. Kearney	DB 1
<b>Libya</b>		
<b>Tripoli</b>	* Tripoli Zoo	CS 2
<b>Lithuania</b>		
<b>Kaunas</b>	* Kaunas Zoo	CS 2
<b>Malaysia</b>		
<b>Dindings</b>	Capture Site	RS 1
<b>Jelevu</b>	Coll. Datok Rajah Kiah	DS 1
<b>Kuala Lumpur</b>	Zoo Negara	CS 1, DB 2
<b>Melaka</b>	Zoological Gardens	CS 2, DS 14
<b>Tabin Wildlife Reserve</b>		DS 1
<b>Mexico</b>		
<b>Cuernavaca-Taxco</b>	Zoofari	CS 1
<b>Guadalajara</b>	* Zoologico Guadalajara	CS 4
<b>Guadalupe</b>	Zoologico 'La Pastora'	CS 2
<b>Leon</b>	Parque Zoologico	CS 2
<b>Mexico City</b>	Alfonso L. Herrera Zoological Park	CS 2, DB 5
<b>Morelia</b>	Zoologico de Morelia, Parque Juarez	CS 7
<b>Puebla</b>	African Safari	CS 8
<b>Toluca</b>	Zacango Zoo	CS 3
<b>Travelling circus</b>	Bell's Brothers Circus	DB 1
<b>Morocco</b>		
<b>Temara</b>	Parque Zoologique National	CS 2

<i>Country/place</i>	<i>Name of collection</i>	<i>Species exhibited</i>
<b>Mozambique</b>		
Lourenco Marques	see Maputo	
Maputo	Unidentified	CS ?
<b>Myanmar</b>		
Rangoon	see Yangon	
Theyboon	Monastery	DS 1
Yangon	Zoological Gardens	CS 2, RU 4, DS 1
<b>Namibia</b>		
Okahandja	Zoopark	DB 2
<b>Nepal</b>		
Kathmandu	Coll. King of Nepal	RU 6
Kathmandu	Zoological Gardens	RU 4
<b>Netherlands</b>		
Amsterdam	* Artis Zoo	DB 10, RU 4, DS 2
Arnhem	* Burgers Zoo	CS 20, DB 7
Emmen	* Noorder Dierenpark	CS 3
Hilvarenbeek	Safaripark Beekse Bergen	CS 21
Rotterdam	* Zoo Blijdorp	CS 3, DB 4, RU 3
<b>New Zealand</b>		
Auckland	* Auckland City Zoological Park	CS 2
Christchurch	Orana Park Wildlife Reserve	CS 9
Wellington	Zoological Gardens	CS 3
<b>Nigeria</b>		
Jos	Jos Museum Zoo	DB 2
Maiduguri	Kyarimi Park Zoo	DB 3
<b>North Korea</b>		
Pyongyang	Zoological Park	CS 4, DB 4
<b>Pakistan</b>		
Indus Civilization	Early specimens	RU ?
Lahore	Zoological Gardens	CS 2
<b>Philippines</b>		
Manila	Zoological and Botanical Gardens	DB 2
<b>Poland</b>		
Breslau	see Wroclaw	
Gdansk	* Zoological Gardens	CS 1
Katowice	Slaski Ogród Zoologiczny	CS 7
Lodz	* Miejski Ogród Zoologiczny	CS 1, DB 1
Wroclaw	Kallenberg's Menagerie	RU 1
Wroclaw	* Miejski Ogród Zoologiczny	CS 3, DB 6, RU 1, DS 1
<b>Portugal</b>		
Lisbon	Coll. King Manuel I	RU 1
Lisbon	Coll. King Philip II	RU 1
Lisbon	* Jardim Zoologico	CS 4, DB 8
<b>Puerto Rico</b>		
Mayaguez	see Puerto Rico	
Puerto Rico	Jardin Zoologico, Zoorico	CS 2

<i>Country/place</i>		<i>Name of collection</i>	<i>Species exhibited</i>
<b>Qatar</b>			
Doha		Municipal Zoological Gardens	CS 2
<b>Romania</b>			
Calarasi		Municipal Zoo	CS 2
<b>Russia</b>			
Kaliningrad	*	Kaliningradskii Zoopark	CS 2
Leningrad		see St. Petersburg	
Moscow	*	Moskovskii Zoologicheskii Park	CS 1, DB 1, RU 1
Rostov		Rostovskii Na-Donu Zoologicheskii Park	CS 2
St. Petersburg		Zoological Gardens	DB 3, RU 2
<b>Saudi Arabia</b>			
Mecca		Early specimens	X 1
Riyadh		Zoological Gardens	CS 2, CSC 2
<b>Singapore</b>			
Singapore		Botanic Gardens	DS 3
Singapore	*	Zoological Gardens	CS 5, RU 8
<b>Slovakia</b>			
Bratislava	*	Zoologicka Zahrada	CS 3
<b>Somalia</b>			
Expedition		Count Potocki	DB 1
<b>South Africa</b>			
Addo National Park		Released specimens	DB ?
Bloemfontein	*	Kings Park	CS 4
Broederst Brook		see Sandton	
Durban		Natal Zoological Gardens	CS 2
Durbanville	*	Tygerberg Zoological Preservation Trust	CS 2
Johannesburg	*	Zoological Gardens	CS 5, DB 4
Lapalala		Home of Fam. C. Walker	DB 1
Lichtenburg	*	Breeding Centre of Pretoria Zoo	CS 31
Potgietersrus	*	Breeding Centre of Pretoria Zoo	CS 6, DB 4
Pretoria	*	National Zoological Gardens	CS 24, DB 10
Private Ranches			CS ?
Sandton		Dealer	CS 2, DB 2
<b>South Korea</b>			
Pusan		Unidentified	DB 1
Seoul		Grand Park Zoo	DB 2, RU 1
<b>Spain</b>			
Barcelona	*	Parc Zoologic	CS 4, DB 4
Fuengirola		Parque Zoologico	CS 4
Madrid		Coll. King Philip II	RU 1
Madrid		Safari Park El Quexigal	CS ?
Madrid	*	Zoo de la Casa de Campo	CS 4, DB 1
Mallorca		Auto Safari Reserva Africana	CS 2
San Roque		Auto Safari Andaluz	CS 4
Valencia	*	Jardin Zoologico	CS 1
Various		Coll. Salvadore Dali	DB 1
Villaescusa	*	Parque de la Naturaleza de Cabarceno	CS 4

<i>Country/place</i>		<i>Name of collection</i>	<i>Species exhibited</i>
<b>Sri Lanka</b>			
Colombo		National Zoological Gardens, Dehiwala	DB 6
<b>Sudan</b>			
Khartoum		Zoological Gardens	CSC 5
<b>Sweden</b>			
Boras	*	Boras Djurpark	CS 2
Boras		Coll. Sigvard Berggren	DB 1
Kolmarden		Kolmardens Djurpark	CS 3
<b>Switzerland</b>			
Basel	*	Zoologischer Garten	DB 2, RU 31, DS 1
Rapperswil	*	Circus Knie	CS 2, DB 1
Zurich		Zoologischer Garten	CS 2, DB 15
<b>Syria</b>			
Aleppo		Early specimens	X 1
<b>Taiwan</b>			
Kaohsiung City		Zoological Gardens	CS 3
Taipei	*	Taipei Zoo	CS 9, DB 3
Taipei		Leofoo Village Safari Park	CS 20
<b>Tanzania</b>			
Mwanza		Saanane Island Game Reserve Zoo	DB 3
<b>Thailand</b>			
Bangkok		Bangkok Safari	CS 4
Bangkok		Dusit Zoo	CS 2, DB 1, DS 1
Bangkok		Private collections	RS 4
Chiangmai	*	Zoological Gardens	RU 3
<b>Tunisia</b>			
Tunis		Parc Zoologique	CS 5
<b>Turkey</b>			
Istanbul		Early specimens	X 1
<b>Ukraine</b>			
Kiev	*	Kievski Zoologicheskii Park	CS 3, DB 1
<b>United Kingdom</b>			
Bekesbourne		Howletts Zoo Park	DB 4
Bewdley	*	West Midland Safari Park	CS 4
Blackpool	*	Municipal Zoological Gardens	CS 4
Bristol		Bristol, Clifton & West of England Zoological Society	DB 9
Burford	*	Cotswold Wildlife Park	CS 3
Chester	*	North of England Zoological Society	CS 2, DB 15, RU 1
Cleethorpes		Marineland and Zoo	DB 1
Colchester	*	Colchester Zoo	CS 2
Edinburgh	*	Royal Zoological Society of Scotland	CS 11, DB 3
Edinburgh		Travelling collection (Atkins)	RU 1
Glasgow		Zoological Society of Glasgow	CS 3
Howletts Zoo Park		see Bekesbourne	
Kirby Misperton	*	Flamingo Land	CS 1
Knowsley Park		see Prescott	
Liverpool		William Cross (dealer)	DS 1

<i>Country/place</i>	<i>Name of collection</i>	<i>Species exhibited</i>
Liverpool	Zoological Gardens	RU 1
London	Early Specimens	RU 4
London	Exeter 'Change	RU 3
London	Jamrach (dealer)	RU 4, RS 1
London	Olympia	RU 1
London	Rice (dealer)	RU 1, DS 2
London	Surrey Zoological Gardens	RU 1
London	Zoological Society of London	CS 1, CSC 2, DB 21, RU 12, RS 1, DS 9
Longleat	see Warminster	
Manchester	Belle Vue Zoological Gardens	DB 7, RU 4
Manchester	Zoological Garden	RU 1
Marwell	see Winchester	
Paignton	Zoological and Botanical Gardens	CS 3, DB 2
Port Lympne	Zoo Park	DB 19, DS 3
Prescot	* Knowsley Safari Park	CS 9, CSC 1
Southampton	Zoological Gardens	CSC 1, DB 2
Travelling menageries	Wombwell's Menagerie	RU 7
Travelling menageries	Manders' Royal Menagerie	RU 1
Warminster	Longleat Park	CS 16
Whipsnade	Whipsnade Park	CS 70, DB 15, RU 14
Winchester	* Marwell Zoological Park	CS 5, DB 2
Windsor	Royal Windsor Safari Park	CS 8
Woburn	* Woburn Wild Animal Kingdom	CS 10
<b>USA</b>		
Albuquerque, New Mexico	Rio Grande Zoological Park	CS 2
Almo, Idaho	Jungle Wonder Circus	CS 1
Alvin, Texas	Bayou Wildlife Park	CS 4
Amityville, New York	Frank Buck's Jungle Camp	RU 1
Asheboro, N. Carolina	North Carolina Zoological Park	CS 5, DB 3
Atlanta, Georgia	* Atlanta Zoo	DB 5
Baker, Louisiana	* Greater Baton Rouge Zoo	CS 5
Baltimore, Maryland	Zoological Gardens	CS 2
Birmingham, Alabama	Birmingham Zoo	CS 3
Boston, Massachusetts	Franklin Park Zoo	DB 3
Brownsville, Texas	* Gladys Porter Zoo	CS 8, RU 2
Buffalo, New York	Buffalo Zoological Gardens	DB 6, RU 1
Catskill, New York	* Catskill Game Farm	CS 2
Center Hill, Florida	Rare Feline Breeding Compound	CS 3
Chicago, Illinois	Chicago Zoological Park, Brookfield	CS 2, DB 19, RU 3
Chicago, Illinois	Lincoln Park Zoological Gardens	DB 3
Cincinnati, Ohio	* Cincinnati Zoo	DB 22, RU 4, DS 4
Cleveland, Ohio	Cleveland Metroparks Zoological Park	CS 3, DB 4
Clifton, Texas	Texas Safari Inc.	CS 6
Colorado Springs, Colorado	Cheyenne Mountain Zoological Park	DB 10
Columbia, South Carolina	* Riverbanks Zoological Park	CS 3, DB 2
Columbus, Ohio	* Columbus Zoo	CS 6, DB 10
Cumberland, Ohio	The Wilds	CS 7
Dallas, Texas	* Marsalis Park Zoo	DB 8
Davis, Oklahoma	Arbuckle Wilderness	CS 1
Deland, Florida	Nautilus Corp., Idle Hour Farm	CS 2
Denver, Colorado	Denver Zoological Gardens	DB 17
Detroit, Michigan	* Detroit Zoological Park	DB 15
Doswell, Virginia	Kings Dominion	CS 15
Duluth, Minnesota	* Lake Superior Zoo	DB 1
El Paso, Texas	* El Paso Zoo	CS 3
Encino, Texas	Bass Ranch	DB 6

<i>Country/place</i>		<i>Name of collection</i>	<i>Species exhibited</i>
Evansville, Indiana	*	Mesker Park Zoo	DB 1
Fort Worth, Texas	*	Zoological Park	CS 8, DB 6, RU 2
Fresno, California	*	Chaffee Zoological Gardens	CS 2, DB 5
Garden City, Kansas	*	Lee Richardson Zoo	DB 3
Gentry, Arkansas		Wild Wilderness	CS 1
Glen Rose, Texas		Fossil Rim Wildlife Centre	CS 10, DB 7
Grand Prairie, Texas		Lion Country Safari	CS ?
Haines City, Florida		Circus World	CS 1, DB 1
Harwood, Texas		Noah's Land Wildlife Park	CS 2
Holland, Michigan		Coll. George F. Getz	DB 1
Hollywood, California		Studio Metro-Goldwyn-Mayer	DB 1
Honolulu, Hawaii	*	Honolulu Zoo	CS 4
Houston, Texas		Bush Gardens	CS 3, RU 2
Hudson, New Hampshire		Benson's Wild Animal Farm	CS 4
Idaho Falls, Idaho		Tautphaus Park Zoo	CS 2
Inman, South Carolina		Hollywild Animal Park	CS ?
International Animal Exchange (IAE)			CS 74
Jackson, Mississippi		Jackson Zoological Park	CS 5
Jackson, New Jersey		Six Flags Great Adventure	CS 32
Jacksonville, Florida	*	Jacksonville Zoological Park	CS 20, DB 4
Johnson City, Texas		McCombs Ranch	CS 1
Kansas City, Missouri		Kansas City Zoo	CS 5, DB 11
Kings Island, Ohio		Wild Animal Safari	CS 31
Kingwood, Texas		Kingwood Safari	CS 1
Knoxville, Tennessee	*	Zoological Gardens	CS 29
Laguna Hills, California		Lion Country Safari	CS 28
Lansing, Michigan		Potter Park Zoo	DB 3
Linn, Texas		Calvin Bentsen's La Coma Ranch	DB 12
Litchfield Park, Arizona	*	Wildlife World Zoo	CS 1
Little Rock, Arkansas	*	Zoological Gardens	CS 2
Llano, Texas		Sandstone Mountain Ranch	CS 3
Los Angeles, California	*	Los Angeles Zoo	CS 2, DB 14, RU 10, DS 3
Louisville, Kentucky	*	Zoological Gardens	CS 8
Madison, Wisconsin	*	Henry Vilas Park Zoo	CS 2
Memphis, Tennessee	*	Overton Park Zoo	CS 11, DB 7
Miami, Florida		Crandon Park Zoo	DB 3
Miami, Florida		Miami Metro Zoo	CS 4, DB 14, RU 3
Milwaukee, Wisconsin		Milwaukee County Zoological Park	CS 3, DB 6, RU 4
Mitchellville, Iowa		Wild World	CS 4
Monroe, Louisiana	*	Louisiana Purchase Gardens and Zoo	CS 2
Mountain Home, Texas		Waters Ranch	CS 2
Nashua, New Hampshire		John Benson's Animal Farm	DB 1
New Orleans, Louisiana	*	Audubon Park Zoological Garden	CS 6
New York, NY	*	Bronx Zoo	CS 2, DB 6, RU 13, DS 2
New York, NY		Central Park Zoo	DB 3, RU 4
New York, NY		Prospect Park, Brooklyn	DB 2
Norfolk, Virginia	*	Virginia Zoological Park	CS 2
Ocala, Florida		Unidentified	CS 1
Oklahoma City, Oklahoma		Oklahoma City Zoo	CS 2, DB 16, RU 5
Omaha, Nebraska	*	Henry Doorly Zoo	CS 3, RU 2
Pawtucket, Rhode Island		Slater-Memorial Park Zoo	DB 1
Philadelphia, Pennsylvania	*	Zoological Gardens	CS 3, DB 3, RU 13, DS 2
Phoenix, Arizona	*	Phoenix Zoo	CS 10
Pittsburgh, Pennsylvania		Zoological Gardens	CS 2, DB 8
Plain Dealing, Louisiana		Wild World	CS 2
Portland, Oregon		Portland Zoological Gardens	RU 1
Portland, Washington		Washington Park Zoo	DB 2
Redwood City, California	*	Marine World Africa USA	CS 2



<i>Country/place</i>		<i>Name of collection</i>	<i>Species exhibited</i>
Royal Oak		see Detroit, Michigan	
Salina, Kansas		Rolling Hills Wildlife Preserve	CS 1
Salt Lake City, Utah	*	Hogle Zoo	CS 3
San Antonio, Texas	*	Zoological Gardens	CS 15, DB 11
San Diego, California	*	San Diego Zoo	CS 12, CSC 1, DB 13, RU 8, DS 4
San Diego, California	*	San Diego Wild Animal Park	CS 109, CSC 8, DB 15, RU 28
San Francisco, California		Zoological Gardens	CS 2, DB 15, RU 2
San Jose, California	*	San Jose Baby Zoo	CS 1
Santillana		Unidentified	DB 2
Sequim, Washington		Olympic Game Farm	CS ?
Sioux Falls, South Dakota		Great Plains Zoo	CS 1
St Louis, Missouri	*	Saint Louis Zoo	CS 4, CSC 2, DB 16, RU 1
Stockbridge, Georgia		Lion Country Safari	CS 12
Tampa, Florida		Lowry Park Zoo	RU 1
Tampa Bay, Florida	*	Busch Gardens	CS 2, DB 12
Thousand Oaks, California		Louis Goebel's Jungle Land	DB 2
Toledo, Ohio	*	Zoological Gardens	CS 4, DB 2
Travelling menageries and circuses			CS 3, DB 18, RU 23, DS 6
Tucson, Arizona		Gene Reid Zoological Park	CS 2
Tulsa, Oklahoma	*	Tulsa Zoo	CS 5, DB 1
Tyler, Texas		Caldwell Zoo	DB 5
Vallejo, California		Marine World Africa	CS 3
Waco, Texas	*	Cameron Park Zoo	CS 2
Washington, DC	*	National Zoological Gardens	CS 2, CSC 2, DB 12, RU 10, DS 1
Wellford, South Carolina		Holly Wild Animal Park	CS 1
West Palm Beach, Florida		Lion Country Safari	CS 36
Wichita, Kansas	*	Sedgwick County Zoo	DB 9
Winston, Oregon	*	Wildlife Safari	CS 10
Yulee, Texas		White Oak Wildlife Center	CS 10, DB 4
<b>Uruguay</b>			
Montevideo		Jardim Zoologico	CS 1
<b>Uzbekistan</b>			
Bukhoro		Court	X 1
<b>Venezuela</b>			
Barquisimeto		Parque Zoologico Bararida	CS 5
Carabobo		Parque Safari	CS 7
Caracas		Parque Zoologico Caracuaao	CS 2
<b>Zimbabwe</b>			
Expedition		Coryndon	CS 1
Expedition		Selous	CS 1
Marondera		Imire Game Ranch	DB 7
Salisbury		J. Condy	DB 1

## 2. Statistics on demography and reproduction

This book contains essential information on 2439 specimens from the five surviving species of rhinoceros exhibited in captivity. While the data on each animal are set out in the following chapters, a few general statistics have been combined here to help in the comparison between species. The data are presented here with little embellishment, because the present study was not designed to cover reproductive behavior in detail. I feel certain that the data can easily be compared with other studies.

### Demography

#### Total numbers

Of the 2439 specimens, about two-thirds were imported from the wild and one-third was born

Table 1. Total number of imports and births of the five species of rhinoceros in captivity from early times until 1994

Species	Imported animals	Births	Total	
Unknown	44		44	1%
<i>R. unicornis</i>	260	137	397	16%
<i>R. sondaicus</i>	22	0	22	1%
<i>D. sumatrensis</i>	92	4	96	4%
<i>D. bicornis</i>	483	292	775	32%
<i>C. simum</i>	626	479	1105	46%
Total	1527	912	2439	
	62%	38%		

in captivity. About a quarter belong to the three Asiatic species of rhinoceros, while all the others come from Africa (Table 1). The rhinoceroses have been seen in 501 collections spread over 79 different countries (Tables 2 and 3). Only in London Zoo has every form been exhibited, including the Javan rhinoceros and the Northern white subspecies.

This is a summary of the tables of collections in each chapter.

#### Sex ratio

The sex ratio of animals imported from the wild and those born in captivity is summarized in Table 4. From the statistics for specimens born in captivity, it would appear that, in each species (except for the Sumatran rhinoceros with only four births), there is a preponderance of males.

Table 3. Number of countries and collections where each species of rhinoceros has been exhibited

Species	No. of countries	No. of collections
<i>R. unicornis</i>	28	116
<i>R. sondaicus</i>	9	15
<i>D. sumatrensis</i>	20	49
<i>D. bicornis</i>	50	203
<i>C. simum simum</i>	60	314
<i>C. simum cottoni</i>	9	14

Table 2. Number of countries and collections exhibiting one or more species of rhinoceros

Continent	No. of countries	No. of collections	No. of rhinoceros (sub-)species					
			1	2	3	4	5	6
Africa	12	39	30	9				
Asia	25	127	96	25	6			
Australia	2	11	7	3	1			
Europe	29	169	110	31	22	4	1	1
North America	2	127	89	22	8	6	2	
South America	9	28	22	5	1			
Total	79	501	354	95	38	10	3	1

Data are based on the list of collections in Chapter 1

Collections with six rhinoceros (sub-)species: London, UK

Collections with five rhinoceros (sub-)species: Antwerp, Belgium; San Diego, USA; Washington, USA

Table 4. Sex ratio of the rhinoceros in captivity

Species	Imported animals		Births		Total	
	$\sigma/q$	%	$\sigma/q$	%	$\sigma/q$	%
<i>R. unicornis</i>	105/92	116:100	79/55	143:100	184/147	127:100
<i>R. sondaicus</i>	4/6	67:100	-	-	4/6	67:100
<i>D. sumatrensis</i>	26/47	57:100	1/3	33:100	27/50	55:100
<i>D. bicornis</i>	226/231	97:100	145/134	107:100	371/365	101:100
<i>C. simum</i>	265/359	73:100	254/220	115:100	519/579	90:100

This table only includes specimens of known sex. It presents the actual numbers of imported animals and captive born specimens of each sex, and has been translated into percentages with the number of females confirmed at 100%

### Longevity

Some information on long-lived specimens is contained in the chapters on each species. The maximum longevity in captivity is set out in Table 5. These calculations exclude the time before the animal entered a collection, because the exact age at arrival is seldom known. This explains some of the differences in the maxima given by Jones (1993), who recorded higher ages for the Sumatran and East African black rhinoceros. The present data are not separated by subspecies, but it is unlikely that there would be major differences. A 40-year-old rhinoceros is old, but in exceptional cases they can reach the age of about 45 years. Table 6 presents the average ages of rhinoceroses in captivity. The first category of '0' years is rather unnatural since it includes specimens with insufficient data. However, it still appears that at least half the specimens live for less than ten years in a captive situation. Only very few reach old age.

### Reproduction

The Javan rhinoceros was never known to reproduce in captivity, while both the Suma-

Table 5. Maximum recorded age in captivity

Species	Maximum age	
<i>R. unicornis</i>	40 years 4 months	(14,742 days)
<i>R. sondaicus</i>	20 years 7 months	(7,603 days)
<i>D. sumatrensis</i>	28 years 6 months	(10,425 days)
<i>D. bicornis</i>	44 years 9 months	(16,337 days)
<i>C. simum</i>	40 years 8 months	(14,845 days)

This table only includes data on specimens which died in 1995 or earlier, and which have been listed in this book. Details can be found in the chapters on each species

tran and Northern white rhinos only gave birth four times. The other three forms have done reasonably well, although the number of births remains low (Table 8). The year in which the first captive birth was recorded is noted in Table 7. At least three quarters of all rhinoceros births in captivity occurred after 1970, before that this was a very rare experience (Table 9). Rhinoceroses of all species have been bred in 141 collections in 36 countries (Table 10).

Unfortunately, it is quite common that a rhinoceros dies at birth or soon thereafter (Table 11). This is especially common in the Indian rhinoceros. The young are born throughout the year (Table 12), and it is dif-

Table 6. Average longevity of rhinoceroses of all species in captivity (shown in percentage)

Years	<i>unicornis</i> n=397	<i>sondaicus</i> n=22	<i>sumatrensis</i> n=96	<i>bicornis</i> n=775	<i>simum</i> n=1105
0	26	81	31	15	8
1-9	34	0	60	45	32
10-19	17	14	7	23	26
20-29	16	5	2	13	31
30-39	6	-	-	3	3
>39	1	-	-	1	0.1

This table records the percentage of the total number of specimens of each species which lived during a certain number of years. It includes both imported specimens and those born in captivity

Table 7. Year of first known birth of each species

Species	Year
<i>R. unicornis</i>	1824
<i>R. sondaicus</i>	-
<i>D. sumatrensis</i>	1872
<i>D. bicornis</i>	1941
<i>C. simum simum</i>	1967
<i>C. simum cottoni</i>	1980

Table 8. Number of captive births of each species up to 1994

Species	Total	M	F	Unknown
<i>R. unicornis</i>	137	79	55	3
<i>R. sondaicus</i>	0			
<i>D. sumatrensis</i>	4	1	3	
<i>D. bicornis</i>	292	145	134	13
<i>C. simum simum</i>	475	253	217	5
<i>C. simum cottoni</i>	4	1	3	
Total	912			

Table 9. Percentage of captive births of rhinoceros over time

Period	unicornis n=137	sumatrensis n=4	bicornis n=292	simum n=479
Before 1940	1	75	-	-
1940-1949	1	-	1	-
1950-1959	2	-	3	-
1960-1969	13	-	15	1
1970-1979	21	-	27	31
1980-1989	39	25	30	52
1990-1994	23	-	24	16

difficult to recognize a pattern, although there could perhaps be a slight preference for the months of October to December in the African species.

The gestation period was not part of this survey. A few data have been published previously and are summarized in Table 13 (see also, Jones DM, 1979:243). The higher values

Table 11. Number of babies born dead (stillbirths)

Species	No.	%	
<i>R. unicornis</i>	28	20	12/13/3
<i>R. sondaicus</i>	-		
<i>D. sumatrensis</i>	-		
<i>D. bicornis</i>	33	11	16/6/11
<i>C. simum</i>	35	7	19/13/3

Table 12. Distribution of known births per month of the year (shown in percentage)

Month	unicornis n=137	sumatrensis n=4	bicornis n=292	simum n=479
January	13	25	9	7
February	6	25	6	4
March	6		8	7
April	5		5	7
May	8	25	8	8
June	6		5	7
July	12		6	8
August	13		11	10
September	6		8	9
October	10		13	10
November	7		10	11
December	8	25	11	12

for the white rhinoceros seem excessive and the average also appears to be a little on the high side. Roughly, the gestation of each species is 16 months, with some individual variation.

It is a strange phenomenon that females in captivity rarely produce many offspring. About half the mothers only give birth once or twice (Table 16). The interval between consecutive births in a young mother is a minimum of 16 months. This has been found in all three reproducing species (Table 17), and means that the females can conceive again very soon after giving birth (some data on the black rhinoceros in Smith and Read, 1992).

Table 10. Number of countries and collections where the rhinoceros was bred

	No. of countries	No. of collections	RU	No. of animals bred			Total animals
				DS	DB	CS	
Africa	4	8	0	0	4	32	36
Asia	11	33	34	3	47	68	152
Australia	1	2	0	0	9	6	15
Europe	14	39	59	1	89	128	277
N. America	2	53	44	0	136	228	408
S. America	4	6	0	0	7	17	24
Total	36	141	137	4	292	479	912



Fig. 6. Female Black rhinoceros 'Kathleen' with Harry Warwick, London 1928 to 1939.

Table 13. Gestation periods

Species	Mean	Range
<i>R. unicornis</i>	478	462-489
<i>R. sondaicus</i>	-	
<i>D. sumatrensis</i>	-	
<i>D. bicornis</i>	457	438-493
<i>C. simum simum</i>	514	480-548
<i>C. simum cottoni</i>		482-485

The periods are given in days, based on the literature and information from collections in the survey

The age of sexual maturity can be calculated in females born in captivity and giving birth to second-generation zoo-born animals (Table 14). A few Indian and white rhinos have given birth when they were four years and four months old, which means that they were barely three years old when they mated successfully. No such early parturitions have been observed in the black rhinoceros. The males mature slightly later (Table 15), although some white rhinos were just over three years when they sired their first calf.

Table 14. Age of captive born females at first parturition

Age in years	<i>unicornis</i> (%) n=18	<i>bicornis</i> (%) n=26	<i>simum</i> n=18
4	22	-	11
5	5	-	6
6	12	19	39
7	5	12	11
8	5	15	11
9	18	4	-
10	5	23	6
>10	28	27	16

**Youngest mothers:**

4 yrs 4 mo	6 yrs 6 mo	4 yrs 4 mo
4 yrs 6 mo	6 yrs 6½ mo	4 yrs 11 mo



Fig. 7. Sumatran rhinoceros baby at Melaka, born 23rd May 1987.



Fig. 8. White rhinoceros mating at Ramat-Gan, 12th January 1988.



Fig. 9. Male Indian rhinoceros at Antwerp in 1880, drawn by A. Heins.

Table 15. Age of captive born males at the birth of first offspring (not at the time of mating)

	Age	
	years	months
<i>R. unicornis</i>	5	10
	7	11
<i>D. bicornis</i>	5	8
<i>C. simum</i>	3	2
	4	4

**Table 16.** Number of births and percentage of females giving birth in each species

<i>No. of births</i>	<i>unicornis</i> <i>n=39</i>	<i>bicornis</i> <i>n=91</i>	<i>simum</i> <i>n=126</i>
1	33	41	44
2	26	15	13
3	18	14	9
4	5	13	6
5	5	9	3
6	2.6	4	13
7	2.6	2	3
8	-	2	4
9	2.6	-	3
10	2.6	-	1
11	2.6	-	-
12	-	-	1

**Table 17.** Shortest intervals in days between captive births in each rhinoceros species

<i>R. unicornis</i>	<i>D. bicornis</i>	<i>C. simum</i>
457	483	409
494	494	451
501	525	469
512		506

In the case of multiple births in one female, the interval between parturitions can be calculated; the shortest intervals are given here

### 3. Early rhinoceroses in Rome, China and the Near-East

#### 1. The Roman world

In the period that the Romans were in power, from the first century BC to the third century AD, a number of rhinoceroses were exhibited in Alexandria and Rome. Several summaries of the evidence about these rhinoceros are available, including Jennison (1937), Gowers (1950), Toynbee (1973: 125-127) and Störk (1977: 307-403). The information in the various contemporary sources is often limited to indications that a rhinoceros was present in a certain year or period. The animal is rarely described, and, even when it is, the details are often second-hand.

##### *Specific identity*

It is a vexing question as to which species of rhinoceros was known to the Romans. Some of the references dating from the first century AD refer to single horns. It is quite possible that these refer to specimens of the Indian rhinoceros (*Rhinoceros unicornis*). The exact origin of these specimens from the Indian subcontinent will inevitably remain speculative. The species was found in Pakistan or Western India (Rookmaaker 1984b) and the rhinos may have reached Rome from there.

Other rhinoceroses in Rome were described as double-horned or 'Ethiopian'. Gowers (1950) suggested that such animals must have been white rhinos (*Ceratotherium simum*), presumably from the Sudan or Ethiopia. His thesis is not generally accepted. The latest contribution on this subject is by Colls *et al.* (1985), who recorded the discovery of a statuette of a rhinoceros in Port Vendres, France, dating from the second part of the second century AD (see Fig. 10). This statuette is clearly a black rhinoceros (*Diceros bicornis*). Although we can continue to argue about differences in species with regard to shape of the head, relative size, shape and size of the horn(s), there can now be no doubt that the majority of animals known to the Romans were African black rhinos. The Romans could have obtained them from the regions around the Red Sea coast or from the hinterland of the present Eritrea and Ethiopia. The black rhinoceros was found in those areas until at least the

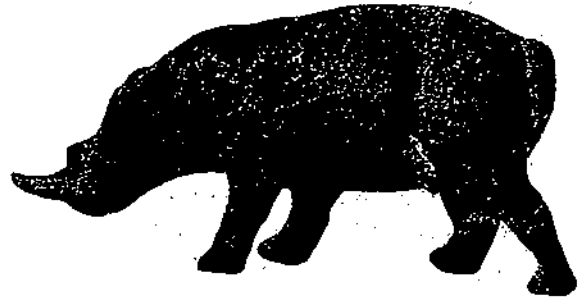


Fig. 10. Black rhinoceros statuette from Roman times, discovered at Port Vendres, France.

last century (Yalden *et al.* 1986:42-45, fig. 5). The white rhinoceros has not been recorded in those areas in recent times. We can conclude that the Romans knew both the single-horned Indian and double-horned black rhinoceros.

#### Alexandria, Egypt

##### *275 BC, Procession for Ptolemy II*

On an unspecified date, Ptolemy II Philadelphus (283-246 BC) held a great procession in the city of Alexandria. Athenaeus, who wrote his *Deipnosophists* in the third century AD, based on earlier lost works, noted (V, 201c) that the procession included 'one Aethiopian rhinoceros'.

##### *100 BC*

Strabo's *Geography* (XVI.4.15) contains an argument on the size of the rhinoceros, taken from a lost work written around 100 BC by Artemidorus of Ephesus. Strabo disagrees with a statement made by Artemidorus, although the latter says that he saw the animal at Alexandria.

#### Rome, Italy

##### *29 BC, the Games of Augustus*

In *Roman History* (22, 5) written in the third century, Dio Cassius stated that the Emperor Augustus organized games in 29 BC, at which "wild beasts and tame animals were slain in vast numbers, among them a rhinoceros and a hippopotamus, beasts then seen for the first

time in Rome". The rhinoceros "has also a horn on its very nose". Gaius Suetonius (ca. 70-140 AD) wrote his *De Vita Caesarum* around 120 AD. He mentions (II, 43,4) that Augustus exhibited rare animals in the Roman arena, including "a rhinoceros at the Septa" and a tiger. He does not give a date.

#### 8 AD, the Games of Augustus

Dio Cassius (*Roman History*, LV, 33,4) reported that a rhinoceros was once again seen at games organized by Augustus. This time, "an elephant overcame a rhinoceros".

#### 55 AD, the Games of Pompey

Gaius Plinius Secundus (23-79 AD) wrote about the animals seen at the games organized by the Emperor Pompey in 55 AD to celebrate the opening of a new amphitheater. Besides a lynx and a giraffe, there was "a rhinoceros with one horn on the nose [*unius in nare cornus*] such as has often been seen. Another bred here to fight matches with an elephant gets ready for battle by filing its horns on rocks" (Plinius, *Naturalis Historia*, VIII. 71). The second sentence in Latin starts with the words '*alter hic genitus*', which H. Rackham translated as 'another bred here.' While this is a rather intriguing statement, I assume that Plinius did not mean to imply that the animal was born in captivity, since the remark is rather too short and general.

Around 200 AD, Solinus wrote in his *Collectanea Rerum Memorabilium* (chapter 43) that the rhinoceros was unknown at the Roman games before the time of Pompey.

#### 80 AD, the Games of Titus

On the occasion of the dedication of the Colosseum in Rome in 80 AD, the Emperor Titus organized shows lasting for 100 days. Martialis (40-102 AD) wrote two epigrams in his *Liber de Spectaculis* (IX and XXII) indicating the presence of a rhinoceros. Apparently, the rhinoceros was made to fight a bear. The penultimate line of the 22nd epigram, in which Martialis wrote, "*namque gravem gemino cornu sic extulit ursum*" ["for a heavy bear he tossed with his double horn"] has become famous. This 'double horn' greatly bothered chroniclers in the 16th and 17th centuries, trying every ingenious trick to explain this anomalous number of horns (summary in Rookmaaker 1981:111-112).



Fig. 11. Coins from the reign of Domitian with double-horned rhinoceros.

#### 81-96 AD, the Reign of Domitian

Several coins showing a double-horned rhinoceros are known, dating from the reign of the Emperor Domitian (e.g., Gowers 1950:69, Störk 1977:371; see Fig. 11). There is no independent information about the rhinoceros itself. It is quite possible, as suggested by Toynbee (1973:126), that these coins were modelled on the rhinoceros exhibited at the games of Titus in 80 AD.

#### 98-117 AD, the Reign of Trajanus

A coin with a double-horned rhinoceros was produced during the reign of the Emperor Trajanus (Störk 1977:371). A rhinoceros may have been shown in Rome during this period.

#### 127 AD, the Reign of Hadrian

Another double-horned rhinoceros can be seen on a coin made during the reign of Hadrian (117-138 AD), dated 127 AD (Gowers 1950:69, Störk 1977:371).

#### 138-161 AD, the Reign of Antoninus Pius

In his *Historiae Augustae* (Anton. Pius, X. 9), Capitolinus recorded that 'rhinoceroses' (plural) were among the animals shown during the reign of Antoninus Pius. This possibly refers to the games of 148 AD, celebrating the tenth anniversary of the Emperor's accession.

#### 180-192 AD, the Reign of Commodus

The Emperor Commodus was famous for personally slaying many animals in the circus, including five hippopotamuses and a giraffe. Dio Cassius (*Roman History*, LXXIII, 10, 3) writes that there were 'rhinoceroses' among these victims. The word is in the plural, but is not qualified further.



**211-217 AD, the Reign of Caracalla**

A rhinoceros was killed in the arena during one of the blood-thirsty games organized by the Emperor Caracalla (Dio Cassius, *Roman History*, LXXVIII, 6, 2). There was a medal struck during Caracalla's reign showing a wrecked ship, with underneath it a rhinoceros which is clearly single-horned.

**218-222 AD, the Reign of Elegabalus**

Lampridius (*Historiae Augustae*, XXVIII, 3) reported that many Egyptian animals were imported during the reign of the Emperor Antonius Elegabalus. Among them there was a 'rhinoceros' (singular), as well as hippopotamuses and a crocodile.

**248 AD, the Games of Philippus Arabicus**

The *Historiae Augustae* (XXXIII, 1) contains a list of animals brought together for the Persian Triumph of Gordianus III, but which were shown by Philip the Arabian in 248 AD. There was only one rhinoceros, which may point to its relative rarity, as other species were present in large numbers, for instance, 32 elephants, ten tigers, 60 tame lions, 30 tame leopards, ten hippos, ten giraffes, and many others.

**2. Early China**

The rhinoceros was frequently seen at the Chinese court. These animals were given as gifts by the rulers and citizens of the different Chinese provinces and neighboring countries, such as Malaysia and Indonesia. Brentjes (1973:253) illustrates a bronze statuette of a double-horned rhinoceros made in the Shang-Yin period (second century BC). As it is quite naturalistic, he suggests that it was made from a captive specimen (see Fig. 12).

The rhinoceroses seen at the Chinese courts or other animal collections before 1500 have not been documented in detail. I have no access to the Chinese literature and have only been able to find a few references, and it is likely that this is just a fraction of the available evidence. Laufer (1914:80-81), in one of his lengthy footnotes, gave a list of rhinos received as tributes until about 1400. This is supplemented by Shafer's review (1985:83).

Yule and Burnell (1886:363, sv. ganda) refer to a statement by Fernao Mendes Pinto that, during their siege of Peking, China, in July 1544, the army of the Kings of the Tar-

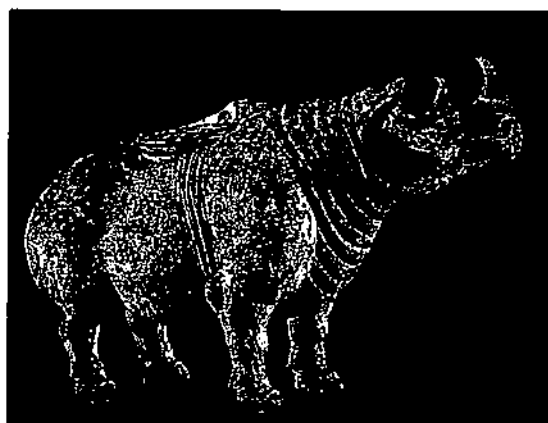


Fig. 12. Rhinoceros wine container from China, Eastern Zhou Dynasty (475-221 B.C.).

tars included 'four score thousand rhinoceroses'. The word used in the original seems to have been 'bada', normally (like 'abada') referring to the rhinoceros. A modern edition of Pinto's Travels edited by Rebecca D. Catz (University of Chicago Press, 1989) argues that the animal meant was more likely to be the yak, and she (p. 241) translates the passage to say that the army travelled "overland with a train of 80,000 yak laden with all their food and supplies". Surely, this would be a more sensible translation.

**2 AD**

The country of Huang-Chi, south of Tonkin, sent a living rhinoceros as a tribute to the court of China (Ts'ien Han shu, chapter 27B, p. 17b). Huang-Chi may have been the Malay Peninsula (Laufer 1914:80, Reynolds 1961a: 18).

**84 AD**

A living rhinoceros was offered to the Chinese court by the Man I beyond the boundary of Jinan (Laufer 1914:81 from Hou Han shu, chapter 116, p. 3b).

**94 AD**

The tribes of South-Western Szechuan made a gift of a rhinoceros and an elephant (Laufer 1914:81 from Hou Han shu, chapter 116, p. 8b).

**168-188 AD, the Reign of the Emperor Ling**  
Kiu-chen of Tonking despatched a living rhinoceros to the Chinese court (Laufer 1914:81 from Ta Ming i t'ung chi, ed. 1461, chapter 90, fol. 5).

**568 AD**

Funan sent a living rhinoceros to the Chinese court (Laufer 1914:81 from Liang shu, chapter 54, p.4).

**ca. 620 AD**

Early in the seventh century (at the beginning of T'ai Tsung's reign), the Chams of Champa sent a tame rhinoceros to Ch'ang-an (Schafer 1985:83 from Chiu T'ang shu, 197, 3609d).

**640 AD**

The people of Champa sent 11 rhinoceroses 'communicating with the sky' to China (Schafer 1985:83 from T'ang hui yao 98, 1751).

**ca. 650 AD**

Sometime in the seventh century, a trained rhinoceros arrived as a gift from an unidentified country called Ziam-pak (Schafer 1985:83 from Ts'efu yuan kuei, 970, 15a).

**730 AD**

A rhinoceros arrived as a tribute from Persia (Schafer 1985:83 from Ts'efu yuan kuei, 971, 8a).

**746 AD**

Another rhinoceros was received as a tribute from Persia (Schafer 1985:83 from Ts'efu yuan kuei, 971, 15b).

**ca. 750 AD**

A trained rhinoceros was sent from the Khmer kingdom of Chinrap during the eighth century (Schafer 1985:83 from Ts'efu yuan kuei, 971, 18a; T'ang hui yao, 98, 1752).

**793 AD**

Another rhinoceros came from Champa in 793 AD, and was displayed in the Grand Shrine to delight the dead as well as the living sovereigns (Schafer 1985:83, from Chiu T'ang shu 13, 3103a; Ts'efu yuan kuei, 972, 5b; T'ang hui yao, 98, 1751). Perhaps this is the same animal as the following one.

**796-797 AD**

A tame rhinoceros, sent as a tribute to the Chinese court, was kept in the Shang-Lin Palace. The animal died in the winter of 797 AD due to the cold weather. A poem celebrating the rhinoceros was composed by Yuan Chen and Po Ku-i (Laufer 1914:81, Schafer 1985:84).

**819 AD**

The people of Ho-Ling [Java] presented a living rhinoceros to the Chinese court (Laufer 1914:81 from Kiu T'ang shu, chapter 197, p. 2b).

**824 AD**

A rhinoceros was sent from Tibet together with other wild animals (Schafer 1985:83 from Ts'efu yuan kuei, 972, 8a).

**ca. 850 AD**

During the ninth century, a trained rhinoceros arrived from Kalinga (Schafer 1985:83 from Chiu T'ang shu 197, 3610a; Ts'efu yuan kuei, 972, 7b; T'ang hui yao, 100, 1782).

**854 AD**

From a country to the south of China, 'the Man of the South' sent a royal tribute to China, which was promptly returned (Schafer 1985:83 from Chiu T'ang shu, 18b, 3131d).

**1009 AD**

The people of Kiao-chi [Annam] presented a tame rhinoceros to the court (Laufer 1914:81 from Sung shi, chapter 489).

**1260-1367, Yuan Dynasty**

The people of Annam presented a rhinoceros to the Chinese court (Laufer 1914:81 from Ta Ming i t'ung chi, ed. 1461, chapter 90, fol. 5).

**3. Northern Africa and the Near East**

There are a few, probably quite incidental reports of rhinoceroses kept in a captive setting in Northern Africa in the sixth century and in the Near-Eastern countries in the 16th and 17th centuries.

**6th century**

Cosmas Indicopleustes wrote *Christian Topographia* around the year 548 AD. In this book, he described a rhinoceros with horns on its nose (XI, 441B). He claimed that while he was "in Ethiopia", he "once saw a live rhinoceros while I was standing at a far distance, and I also saw the skin of a dead one stuffed with chaff, standing in the Royal Palace". It is likely that the living rhinoceros was seen in the wild, not in a captive situation.

*975/996 AD, Cairo, Egypt*

During the reign of the Cadhi el-Aziz (975-996 AD), a rhinoceros of unknown origin was transported to Cairo; it died on the way. It had a single horn. The skin was mounted, filled with hay, and exhibited in Cairo (Brentjes 1978:151).

*1502, Mecca, Saudi Arabia*

Ludovico di Varthema from Bologna travelled in Asia from 1502 to 1508. He also visited Mecca. In one of the sacred sites of that city, he saw an enclosure with "two live unicorns, and these are shown as very remarkable objects, which they certainly are". He proceeds to describe their appearance and size. He was told that "these two animals were presented to the Sultan of Mecca ... by a King of Ethiopia, that is, by a Moorish King" (Varthema 1928:22, original Italian published in 1510). The use of the word 'unicorn' would seem to point at an Asian rhinoceros, which contradicts its provenance.

*1550, Cairo, Egypt*

The traveller André Thevet (1556:145) saw a rhinoceros in the Castle of Cairo in 1550. He did not provide a description, except to say that it had four legs, a single horn on the snout and that it was the enemy of the elephant.

*1575, Aleppo, Syria*

Leonhart Rauwolf from Augsburg was a medical doctor, who wrote a book about his travels in the Near East from 1573 to 1575. While in Aleppo, Syria in February 1575, he noted that 'a young rhinoceros was carried through the town to Constantinople. It came from the most Eastern parts, and had killed about 20 men before they could take it' (from an English Translation, Rauwolf 1738, II: 181; original German published in 1582). If the animal had in fact come from the East, it must have been an Asian species.

*1588, Istanbul, Turkey*

Samuel Kiechel of Ulm (1866: 415) saw a rhinoceros in Constantinople during his travels in the Middle East. He gave a rather long description showing that the animal had two horns. Jennison (1928:151) mentions the possibility that it was this animal that was illustrated by Ulisse Aldrovandi, *De Quadrupedibus* (1616), as the 'Asinus cornutus' (see Fig. 13). This small engraving shows an animal

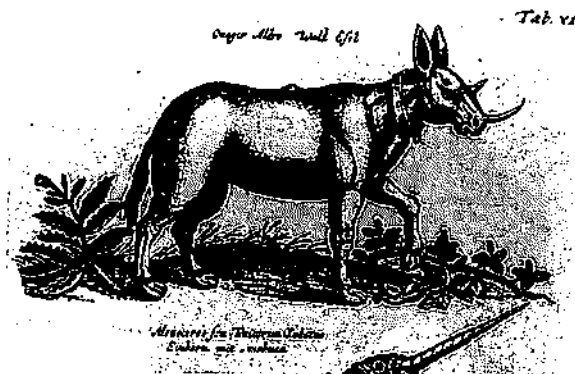


Fig. 13. The 'Asinus Cornutus' of Aldrovandi, 1616.

with two horns on the nose and above the eyes, similar to those of African rhinoceroses. It has a collar around the neck, which could point at a captive life (Rookmaaker 1985:283).

*1620, Istanbul, Turkey*

A Turkish illustration made between 1620 and 1622 shows a (single-horned) rhinoceros being taken by a Persian ambassador as a gift for the Turkish Sultan Osman II (1603-1622), together with four elephants (Störk 1977:480).

*1669, Bukhoro, Uzbekistan*

In 1669, an emissary from Russia, Boris Pazuchin, was sent to King Khan Abdul Aziz of 'Buchara'. While being entertained at the court, a rhinoceros ['karka'] was paraded in front of him: "und dem am Hofe des Khans, unter anderen Tieren, auch ein Rhinoceros vorgeführt wurde" (Unbegaun 1956:549).

*1675, Esfahan, Iran*

Jean Chardin (1711: 45, pl. XL) saw a rhinoceros in the Royal Stables at Esfahan, when he first arrived in the city. He had many opportunities to observe it and he gave a good description of the animal, accompanied by an obviously original drawing. The animal shared its quarters with two elephants and had been presented by an Ambassador from Ethiopia. The rhinoceros depicted in the plate is clearly single-horned (Indian). In his description, Chardin also mentions only one horn. It is hard to explain this presumed African origin.

The Englishman John Fryer visited Esfahan in 1676, and among the animals kept by the Emperor, he saw a rhinoceros said to have come from 'Bengala'. It could be the same animal seen by Chardin. Fryer (1698:287) gave a long description of the animal with a single horn.



Fig. 14. Engelbert Kempfer's Karkadann in Esfahan in 1683.

#### 1683, Esfahan, Iran

Engelbert Kempfer was given an album of drawings during his stay in Esfahan in 1684 and 1685. It contains a depiction of a 'karkadann' (rhinoceros) which was seen alive in the Royal Gardens on 30 July, 1683 (preserved in the British Museum, Department of Oriental Drawings; see Rookmaaker 1978b:33, No. 8.4). The drawing itself would appear to be a copy of an engraving of the second Lisbon rhinoceros made in 1586 by Philippe Galle (Clarke 1986: 166, Fig. 131; see Fig. 14).

#### 1699, Persia

A rhinoceros was donated by an Indian ruler to the King of Persia, but it died on the journey. It contained a bezoard stone, which was taken to Paris and preserved in the Cabinet du Roi (Daubenton in Buffon 1764: 210, No. 1056).

#### Chronological list of rhinoceroses of unknown species

275 BC	Alexandria: Ptolemy
100 BC	Alexandria
29 BC	Rome: Augustus
2 AD	China: court
8 AD	Rome: Augustus
55 AD	Rome: Pompey
80 AD	Rome: Titus
81 AD	Rome: Domitian
84 AD	China: court
94 AD	China: court
98 AD	Rome: Traianus
127 AD	Rome: Hadrian
138 AD	Rome: Pius
168 AD	China: Ling
180 AD	Rome: Commodorus
211 AD	Rome: Caracalla
218 AD	Rome: Elegabalus
248 AD	Rome: Philippus
568 AD	China: court
620 AD	China: court
640 AD	China: court
650 AD	China: court
700 AD	Ethiopia (Cosmas)
730 AD	China: court
746 AD	China: court
750 AD	China: court
793 AD	China: court
796 AD	China: court
819 AD	China: court
824 AD	China: court
850 AD	China: court
854 AD	China: court
975 AD	Cairo: el Aziz
1009 AD	China: court
1260 AD	China: court
1502 AD	Mecca
1550 AD	Cairo
1575 AD	Aleppo
1588 AD	Istanbul
1620 AD	Istanbul
1669 AD	Bukhoro
1675 AD	Esfahan
1683 AD	Esfahan
1699 AD	In transit to the King of Persia

#### 4. The Indian rhinoceros (*Rhinoceros unicornis*)

The Indian rhinoceros is a fascinating subject for the zoo historian. The first rhinoceroses seen in Europe (after Roman times) belonged to this species, and it has been consistently imported in small numbers ever since. They have been kept in royal menageries, private homes, zoological gardens, travelling shows and circuses, all with equally acceptable results. Since 1515, 397 Indian rhinos have been individually recorded in captivity. On 20 May, 1515, a rhinoceros reached the harbor of Lisbon, Portugal, a donation from an Indian ruler to the King of Portugal. Its likeness was remarkably accurately depicted by the great German artist, Albrecht Dürer, on a woodcut dated 1515, which became the unrivaled prototype of the rhinoceros for many ages. There were at least eight rhinos in Europe before 1800, all of them Indian: 1515 and 1579 in Lisbon, 1684 and 1739 in London, 1741 in the Netherlands and throughout Europe, 1770 in Versailles, and 1790 and 1799 once again in London. It was not until the end of the 18th century that the most discerning rhinoceros experts began to realize that not all rhinos belonged to one species.

The Indian rhinoceros has consistently been kept in captivity, albeit never in great numbers. From the total of 397 specimens, 260 (65%) were imported from the wild and 137 (35%) born in captivity. Since at least 1850, there has never been a year with less than three specimens living in a captive situation. Up until 1872, the number of living animals in collections around the world at any one time was less than ten. There was a marked increase in imports from India between 1870 and 1878, which must have been due to the activities of animal dealers such as Jamrach operating from Calcutta. In those few years, 33 specimens were exported to various collections. At the end of the 19th century, the collective number of Indian rhinos kept in captivity once again dropped to below ten, and this number remained stable until about 1933. The total number of living animals from this species of rhinoceros reached 30 in 1959, 50 in 1971, and in 1986 exceeded one hundred for the first time.

It is not surprising that the Indian rhinoceros found its way into the collections of kings and maharajahs in its native India and Nepal. The first records, vague as they are, date back to 1409, 1615 and 1660, but obviously these instances happened to be recorded by accident, and there were probably many others. From at least the end of the 18th century, the rhinoceros was regularly to be found in the gardens of various rulers in the Indian subcontinent. Our information is very probably incomplete. The Kings of Oudh (*cf.* Lucknow), for instance, had a remarkable liking for rhinos, since various reports referring to the period between 1820 and 1840 indicate that up to 20 specimens could be seen in their gardens. One early visitor, Bishop Reginald Heber, even said, in a rather general fashion, that rhinos "seem to propagate in captivity without reluctance". We would like to know more, but the sources are silent. The Kings of Nepal also kept rhinos in Kathmandu from time to time, while preserving and hunting them in their natural habitat. In these royal gardens in Nepal, the first captive birth of a rhinoceros occurred in May, 1824. Although the exact circumstances are elusive, we are reliably informed by Brian Hodgson (1800-1894) that the parents mated in captivity and that the young animal survived. Other captive births occurred in 1925 and 1948, and then with some regularity from 1956 onwards.

##### Previous lists and the studbook

The American lawyer and zoo-historian Richard Reynolds III collected information on the rhinoceros in captivity in the 1950s. In his compilation published in 1961, he listed about 110 examples of the Indian rhinoceros. A studbook for this species was started around 1970 at Basel Zoo, Switzerland, under the capable supervision of Dr Ernst M. Lang, the then director, assisted by Mrs Kathleen Tobler. When the data were first published in 1975, they contained 61 specimens (Lang, 1975). Since that time, the studbook for Indian rhinoceroses has regularly been published by Basel Zoo, in 1980, 1982, 1985, 1988, 1991,

1993 and 1995. Throughout the years, the number of specimens listed increased from 93 in 1980, to 100, 119, 145, 184, 203 and 224, respectively, in the following editions. Each animal is given a (consecutive) number and a house-name, based on the place of origin or the zoo of birth. The data in the ninth edition of the studbook published in Basel in 1997, and for the first time edited by Gabriele Wirz-Hlavacek and Peter Studer, have only been used in this work in connection with transfers up to 1994 and deaths of specimens already listed. In 1993, a studbook for the existing population in Indian zoos was compiled by Kanpur Zoo, and included 41 specimens.

### **Travelling shows and circuses**

In 1741, a female rhinoceros was brought from India to the Netherlands. This animal, answering to the name of 'Clara', travelled with her enterprising owner to all corners of Europe until approximately 1758, which shows that this species can quite easily be kept even in adverse conditions. The first rhinoceros ever

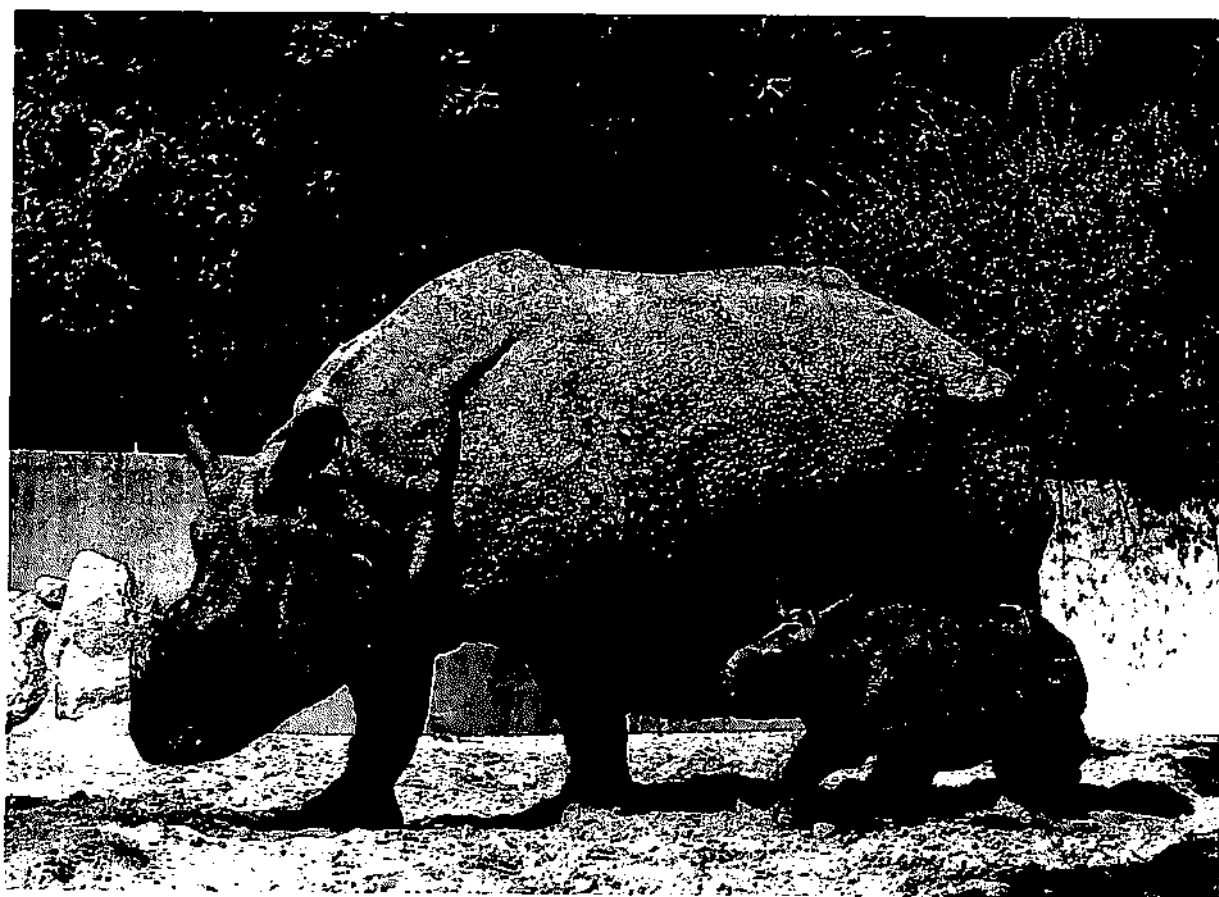
to be seen in America, as early as 1830, was part of a travelling circus. Since that time, at least eight Indian rhinos have been kept in travelling exhibitions in Europe and 18 in the USA. The last of these animals died in 1919.

### **Taxonomy**

The species has traditionally been treated as monotypic. Groves (1993) reported that a multivariate analysis performed on a rather limited number of skulls from Assam, Cooch Behar and Nepal indicated a clear difference between specimens from Assam and Nepal. Until further investigations have been carried out and the Nepal group has been named, it may be advisable not to mix specimens originating from these two populations, if this can be avoided.

### **Origin of imports**

During the course of history, 260 Indian rhinos have been taken from the wild. The origin



*Fig. 15. Female Indian rhinoceros 'Miris' with calf 'Terai' at Berlin Zoo in September 1979.*

Table 18. Average longevity

Years in captivity	Imported animals		Captive births	
	No.	%	No.	%
0	71	26	33	24
1-9	87	34	52	38
10-19	43	17	32	24
20-29	41	16	17	13
30-39	15	6	3	1
>39	3	1		

of 97 of these is unknown, while that of the others is summarized here:

India	12
India, Bihar	1
India, Assam	71
India, Kaziranga	30
Bhutan	1
Nepal	48
Unknown	97
Total	260

This shows that 114 rhinos (or 44%) came from different parts of India. Most of these must have been caught in the present State of Assam, which has always been the region where the species was particularly common. A large number is stated to have come from the Kaziranga National Park. There is also quite a large number from Nepal. It is remarkable that almost all specimens imported into Europe and America between 1905 and 1939 were said to have come from Nepal.

### Longevity

The Indian rhinoceros lives reasonably long in captive conditions. Just over a quarter did not survive a year, but this category includes specimens with incomplete data as well as common stillbirths. About half the animals lived for ten years or more in captivity (Table 18).

The longest living specimen was a male from London Zoo during the last century, which reached just over 40 years (Table 19). Unfortunately, there is no record of how old it was when it arrived. It is often mentioned that an Indian rhinoceros died in Calcutta Zoo at the age of 47 years (Reynolds 1961a: 18). However, since the animal lived at the zoo for about 37 years and its previous history was unknown, it is obvious that this length of captive life is just an estimate or a guess, with no accurate evidence to support it.

### Births in captivity

There have been 137 births of Indian rhinoceroses in captivity up to the end of 1994. This includes 28 cases (20%) in which the baby was aborted (12), stillborn (13) or died within a month (3). The first birth was recorded in May 1824 at the Royal Collection in Nepal. Basel Zoo has been remarkably successful in breeding this species of rhinoceros since 1956, where there has been a total of 25 births. This has only been surpassed by San Diego Wild Animal Park where there have been 27 births since 1975. The Basel female 'Joymothi', which first gave birth in Basel in 1956, has become the matriarch of a productive rhinoceros family: she had ten (6/4) calves herself, and these produced 19 female and 17 male offspring. Joymothi's grandchildren in the third generation have produced 14 female and ten male young. This makes a total of 42 offspring for Joymothi, or 36% of the total. Reynolds (1961a) only recorded five births in the Indian rhinoceros. Thanks to the success and research in Basel, the record has changed dramatically. The species breeds slowly, but without any major complications.

The young animals were born at a rather limited number of zoos in three continents (Table 20).

Table 19. Longevity of captive Indian rhinos dying in captivity

Sex	Place	Dates	Age		Total in days
			years	months	
Male	London	25 July 1864 – 12 December 1904	40	4	14,742
Male	Philadelphia	14 September 1955 – 7 January 1996	40	3	14,725
Female	Vienna	24 May 1856 – 14 November 1895	39	5	14,418
Female	New York	24 May 1923 – 25 January 1962	38	8	14,126
Male	Calcutta	March 1932 – 30 August 1970	38	5	14,031

Table 20. Locations of births in the Indian rhinoceros (1824-1994)

Continent	No. of births	Year of first birth	No. of countries	Leading country
Africa	0			
Asia	34	1824 (Nepal)	3	India (30)
Australia	0			
Europe	59	1956 (Switzerland)	5	Switzerland (27)
N. America	44	1967 (USA)	2	USA (42)
S. America	0			

*Countries:*

Asia	India, Japan, Nepal
Europe	Belgium, Czech Republic, Germany, Switzerland, UK
North America	Canada, USA

Table 21. Collections where the Indian rhinoceros has been exhibited (1500-1994), arranged by continent and country

Country	Total No. places	Year and place of first rhino	Largest (>5) No. Zoo: Total No.
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*Africa*

Egypt	1	1949 Cairo	
Total: 1 country, 1 collection. First imported in 1949 into Egypt			

*Asia*

Bangladesh	1	1827 Private	
China	1	1959 Beijing	
India	29	1409 Delhi	Gauhati: 72
Japan	3	1958 Tokyo Tama	
Myanmar	1	1938 Yangon	
Nepal	2	1823 Kathmandu	
Pakistan	1	Mohenjo Daro	
Singapore	1	1989 Singapore	Singapore: 8
South Korea	1	1983 Seoul	
Thailand	1	1986 Chiangmai	
Total: 10 countries, 41 collections. First imported in 1409 into India			

*Europe*

General	1		
Austria	1	1856 Vienna	
Belgium	1	1861 Antwerp	Antwerp: 13
Czech Republic	2	1980 Dvur Kralove	
France	4	1770 Versailles	
Germany	13	1870 Hamburg Zoo	Stuttgart: 14
Ireland	1	1834 Dublin	
Italy	2	1951 Rome	
Netherlands	2	1964 Amsterdam	
Poland	2	1874 Breslau Circus	
Portugal	2	1515 Lisbon Palace	
Russia	2	1865 Moscow	
Spain	1	1583 Madrid	
Switzerland	1	1951 Basel	Basel: 31
UK	15	1684 London (show)	London/Whipsnade: 14
Total: 14 countries, 49 collections. First imported in 1515 into Portugal			

*North America*

Canada	1	1976 Toronto	
USA			
Countrywide	1	1830 Circus	



Table 21. Collections where the Indian rhinoceros has been exhibited (1500-1994), arranged by continent and country

Country	Total No. places	Year and place of first rhino	Largest (>5) No. Zoo: Total No.
California	4	1963 San Diego	San Diego WAP: 28
DC	1	1939 Washington	Washington: 10
Florida	2	1970 Miami	
Illinois	1	1948 Chicago Br.	
Missouri	1	1934 St Louis	
Nebraska	1	1966 Omaha	
New York	4	1871 NY Central	NY Bronx: 13
Ohio	1	1877 Cincinnati	
Oklahoma	1	1981 Oklahoma	
Oregon	1	1964 Portland	
Pennsylvania	1	1875 Philadelphia	Philadelphia: 13
Texas	3	1970 Houston	
Wisconsin	1	1959 Milwaukee	

Total: 2 countries, 24 collections. First imported in 1830 into US circus.

#### South America

Brazil 1 1977 Sao Paulo  
Total: 1 country, 1 collection. First imported in 1977 into Brazil

World Total: 28 countries, 116 collections

Table 22. The Indian rhinoceros: population changes 1400-1994. Numbers show total (male/female/sex unknown)

Period	Imported animals	Captive births	Deaths	Total animals at end of period	Captive born population
1400-1799	18 (6/3/9)		17 (5/3/9)	1 (1/0)	
1800-1809	3 (0/0/3)		4 (1/0/3)	0	
1810-1819	2 (1/0/1)			2 (1/0/1)	
1820-1829	10 (1/1/8)	1 (1/0)	11 (1/1/9)	2 (2/0)	1 (1/0)
1830-1839	8 (5/1/2)		8 (5/1/2)	2 (2/0)	
1840-1849	4 (1/2/1)		4 (3/1)	2 (0/1/1)	
1850-1859	12 (3/4/5)		8 (1/2/5)	6 (2/3/1)	
1860-1869	12 (3/2/7)		8 (3/2/3)	10 (2/3/5)	
1870-1879	30 (6/8/16)		25 (1/6/18)	15 (7/5/3)	
1880-1889	8 (2/1/5)		11 (1/3/7)	12 (8/3/1)	
1890-1899	2 (0/0/2)		4 (2/1/1)	10 (6/2/2)	
1900-1909	10 (7/1/2)		13 (8/2/3)	7 (5/1/1)	
1910-1919	3 (2/0/1)		5 (3/0/2)	5 (4/1)	
1920-1929	6 (1/5)	1 (1/0)	6 (4/2)	6 (2/4)	
1930-1939	10 (6/4)		5 (2/3)	11 (6/5)	
1940-1949	7 (3/4)	1 (0/1)	5 (2/3)	14 (7/7)	
1950-1959	19 (11/8)	3 (1/2)	6 (3/3)	30 (16/14)	3 (1/2)
1960-1969	26 (11/14/1)	17 (8/8/1)	20 (7/11/2)	53 (28/25)	18 (9/9)
1970-1979	24 (13/11)	29 (17/11/1)	31 (19/11/1)	75 (39/36)	36 (19/17)
1980-1989	35 (19/16)	53 (33/19/1)	50 (25/24/1)	113 (66/47)	68 (44/24)
1990-1994	11 (4/7)	32 (18/14)	29 (16/13)	127 (72/55)	82 (50/32)
Totals	260 (105/92/63)	137 (79/55/3)	270 (112/92/66)		



Fig. 16. The first Indian rhinoceros to be born in captivity, Kathmandu 1824, drawn by Brian Hodgson in 1834.



Fig. 17. Indian rhinoceros calf at Basel Zoo.

**Chronological list of all known specimens of *Rhinoceros unicornis* in captivity**

This is a list of all known or likely specimens of the Indian Rhinoceros kept in captivity throughout the ages. The first column indicates the studbook number of the animal according to the publication by Basel Zoo (1995) with additions up to 31 December 1994. The second column indicates the status of the animal: W: imported from the wild; B: born in captivity; B+: captive stillbirth. The third column indicates the sex of the specimen: M: male; F: female; no entry means sex unknown. The final column indicates the history, starting with the year of arrival or birth, followed by the name of the place where the collection is located. This is followed by another year and collection in cases of transfer. If the line ends with a year, the animal died at that time; if the line ends with the name of a collection, the animal is presumed still alive in 1995.

Studbook No.	Status	Sex	History
W			1409 India: Delhi (?)
W			1515 Lisbon 1515 To Rome 1516
W			1579 Lisbon 1583 Madrid 1586
W			1615 India: Ajmer (?)
W			1615 India: Ajmer (?)
W			1660 India: Delhi (?)
W			1665 India: Jahanabad (?)
W			1671 India: Kasimbazar 1671
W	F		1684 London 1686
W	M		1737 To London (Shaftesbury) 1737
W	F		1737 London (George Inn) 1737
W	M		1739 London 1744
W	F		1741 Europe: Dutch Rhinoceros 1758
W	M		1770 Paris Versailles 1793
W			1788 Paris Versailles (?)
W	M		1790 London: Exeter Change 1793
W	M		1790 Pune (?)
W	M		1799 London: Exeter Change 1800
W			1800 India: Bhagalpur (?)
W			1807 Dhaka (?)
W			1807 India: Patna (?)
W	M		1810 London: Exeter Change 1814 Europe: Tourniaire 1839

Studbook No.	Status	Sex	History
W			1816 UK: Wombwell 1820
W	M		1823 Kathmandu (?)
W	F		1823 Kathmandu (?)
B	M		1824 Kathmandu 1834 To Calcutta (?)
W			1825 Vadodara Court (?)
W			1825 Lucknow (?)
W			1825 Lucknow (?)
W			1825 Lucknow (?)
W			1825 Lucknow (?)
W			1825 Lucknow (?)
W			1828 Calcutta: Chittpour (?)
W			1829 Calcutta: Barrackpore (?)
W	M		1830 USA: Flatfoots 1835
W	M		1830 USA: Flatfoots 1836
W			1834 London: Surrey (?)
W	M		1834 London 1849
W	M		1834 Liverpool 1834 Dublin 1834 Liverpool 1841/43
W	F		1834 USA: Purdy 1837
W	M		1835 USA: Titus 1836
W			1836 UK: Wombwell 1836
W	F		1840 Europe: Schreyer 1843
W	F		1840 Manchester 1842 UK: Wombwell 1850
W	M		1841 Europe: Huguet 1848
W			1848 USA: Raymond 1853
W			1850 Unknown 1861 Marseilles (?)
W			1850 Paris Jardin 1854
W			1850 London (?)
W	F		1850 London 1873
W	M		1851 USA: Quick/Rice 1861
W			1852 India: Allahabad (?)
W			1853 USA: Robinson 1853
W	F		1855 London: Jamrach 1856 Vienna 1894 Wroclaw 1895
W	M		1855 London: Jamrach 1856 Manchester (?)
W	F		1855 London: Jamrach 1856 Manchester (?)
W	F		1856 Calcutta: Barrackpore 1860
W	M		1856 Calcutta: Barrackpore 1862
W	M		1861 Antwerp 1898
W			1864 Amsterdam 1873
W	M		1864 Calcutta: Barrackpore 1864 Dublin 1865
W	F		1864 Calcutta: Barrackpore 1864 London 1865 Paris Jardin 1874
W	M		1864 London 1904
W			1864 UK: Manders (?)
W			1864 Vadodara: Court 1875
W			1864 Vadodara: Court 1875
W			1865 Moscow 1866

Studbook No.	Status	Sex	History	Studbook No.	Status	Sex	History
231	W	F	1867 Calcutta: Mallik 1867		W		1907 Antwerp 1910
	W		1868 USA: Bailey 1874		W	M	1907 Manchester 1917
	W		1868 USA: Van Amburgh 1870		W	M	1907 New York Bronx 1918
	W	M	1870 Hamburg 1900		W	M	1907 USA: Ringling 1926
	W		1870 Manchester (?)		W	M	1910 Calcutta 1912 London 1921
	W	M	1870 UK: Wombwell (?)		W	M	1910 Calcutta 1930
	W	F	1870 UK: Wombwell (?)		W		1911 St Petersburg 1918
	W	M	1870 USA: O'Brien 1875 Philadelphia 1901		W	F	1922 London 1926
	W	F	1871 Calcutta: Mallik 1871		W	F	1923 Cincinnati 1929
	W		1871 NY Central Park (?)	232	W	F	1923 New York Bronx 1962
	W		1871 USA: O'Brien 1875		W	F	1923 Philadelphia 1943
	W	F	1871 Antwerp 1871 Berlin 1872 London: Jamrach (?)		W	M	1924 London 1941
	W		1872 NY Central Park (?)		B+	M	1925 Calcutta 1925
	W	F	1872 Cologne 1900		W	F	1929 Hamburg 1955
	W	M	1872 Berlin 1909		W	M	1932 Calcutta 1970
	W	F	1872 Berlin 1896 Frankfurt/M 1909		W	F	1932 Calcutta 1965
	W		1872 USA: Robinson 1877 Cincinnati 1878 USA: Robinson (?)		W	M	1933 London 1935 Whipsnade 1945
	W		1872 USA: Barnum 1873	74	W	F	1933 London 1938
	W		1873 USA: Barnum 1875		W	M	1934 St. Louis 1961
	W	M	1873 Dresden 1892		W	M	1934 Paris Vincennes 1960
	W		1874 Wroclaw: Kallenberg (?)		W	F	1935 Amityville 1936
	W		1874 New York: Central Park 1874	233	W	M	1938 Calcutta 1939 Washington 1959
	W	F	1874 Berlin Zoo 1884		W	F	1938 Yangon 1942
	W	F	1875 London: Rice 1875		W	M	1939 Kathmandu (?)
	W		1875 USA: O'Brien 1882		W	F	1941 Udaipur 1946 Jaipur 1964
	W		1876 USA: Bailey 1877	105	W	F	1944 Lucknow 1973
	W	M	1876 Manchester 1904	13	W	M	1947 Whipsnade 1961
	W		1876 New York: Central Park (?)	03	W	M	1948 Chicago 1970
	W		1877 USA: Bailey 1879	02	W	F	1948 Chicago 1968
	W	F	1877 Calcutta 1880	04	B+	F	1948 Transit to Chicago 1948
	W		1878 USA: Barnum 1878		W	M	1949 Cairo 1955
	W		1878 Trivandrum 1900		W	F	1949 Cairo 1955
	W		1879 USA: Robins 1887	05	W	M	1951 Basel 1964
	W	M	1880 Calcutta: Burdwan (?)	06	W	M	1951 Rome 1983
	W	F	1880 Calcutta: Burdwan (?)	07	W	F	1952 Basel 1983
	W		1880 Germany: Planet (?)	08	W	F	1952 Whipsnade 1976 Amsterdam 1985
	W		1882 St Petersburg 1884	62	W	M	1952 Bombay 1980
	W		1883 USA: Barnum 1886	75	W	M	1953 Madras 1980
	W		1884 USA: Forepaugh 1888	09	W	F	1953 Philadelphia 1976 San Diego WAP 1977
	W	M	1886 London 1911	10	W	M	1955 Philadelphia 1996
	W		1887 Calcutta (?)	12	W	M	1956 Trivandrum 1987
	W		1896 Gwalior (?)	11	W	F	1956 Mysore 1992
	W		1898 USA: Bailey 1902	14	B	M	1956 Basel 1959 Milwaukee 1987
	W		1902 Antwerp (?)	16	W	F	1957 Hamburg 1968 Los Angeles 1971
	W	M	1905 Kathmandu (?)	15	B	F	1957 Whipsnade 1959 Milwaukee 1975
	W	M	1905 Kathmandu (?)		W	M	1957 Gauhati 1959 Delhi (?)
	W	M	1905 Kathmandu (?)		W	F	1958 Bombay 1958
	W	F	1905 Calcutta 1932		B	F	1958 Basel 1973
	W	M	1906 London 1924	17			

<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>	<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
82	W	F	1958 Gauhati 1964	42	B	M	1968 Mysore 1971 Berlin Tierpark 1996
22	W	M	1958 Tokyo 1995	43	W	F	1968 Delhi 1986
90	W	M	1959 Lucknow 1979	77	W	F	1968 Hyderabad 1983
	W	F	1959 Beijing 1961	48	W	F	1968 Gauhati 1970 Transit to Omaha 1970
72	W	M	1959 Beijing 1978		W	F	1968 Gauhati 1969
18	W	M	1959 Berlin Zoo 1965 Basel 1983				Vadodara 1990 Mysore 1992
19	W	M	1960 Washington 1981 New York 1983 Oklahoma 1989	44	B	M	1969 Basel 1970 Houston 1971
33	W	M	1960 Gauhati 1965 Delhi 1988		W	F	1969 Gauhati 1970
	W	F	1960 Gauhati 1963 Paris Vincennes 1967		W	M	1969 Gauhati 1969
	W	M	1960 Hamburg 1961		W	M	1969 Gauhati 1970
20	B	M	1960 Whipsnade 1975	45	B	F	1969 Basel 1970 Houston 1972 Brownsville 1974 Los Angeles
24	W	M	1960 Gauhati 1986				
21	W	F	1961 Calcutta 1961 Tokyo 1991	49	W	M	1970 Miami
23	B	F	1961 Calcutta 1982	50	W	F	1970 Miami 1987
	W	F	1962 Yangon 1964				Philadelphia 1988 New York Bronx 1990
26	B	M	1962 Basel 1963 San Diego 1972 San Diego WAP	73	W	M	1970 Gauhati 1971 Antwerp 1988
76	W	M	1962 Gauhati 1964	51	B	F	1971 Delhi 1973 Whipsnade
			Hyderabad 1983	53	B	M	1971 Mysore 1975
30	W	F	1962 Gauhati 1963				Gelsenkirchen 1976
			Washington 1963				Toronto 1990 New York Bronx
27	B	M	1963 Basel 1964 Paris Vincennes 1976	81	W	M	1971 Gauhati 1973
28	B	F	1963 Gauhati 1963				Brownsville 1973
			Washington 1980	54	B+	F	1971 Stuttgart 1971
29	B	F	1963 Gauhati 1965 San Diego 1972 San Diego WAP	55	B	F	1971 Basel 1972 Antwerp
	W		1964 Kathmandu (?)	56	B	F	1971 Basel
63	W	M	1964 Portland 1966 Omaha 1975	57	B	M	1971 Gauhati 1974 Nagoya
				58	B	M	1971 Hyderabad 1983
31	B	F	1964 Basel 1965 Berlin Zoo 1993	60	B	M	1972 Berlin Zoo 1973
32	B	M	1964 Hamburg 1965 Berlin Zoo 1993				Amsterdam 1976
	W	M	1964 Gauhati 1964	67	W	F	Whipsnade
01	W	M	1965 Mysore 1979				1973 Gauhati 1975 New York Bronx
34	B	F	1965 Basel 1968 Stuttgart 1992	128	W	F	1973 Gauhati 1977 Kanpur
				66	W	F	1973 Gauhati 1975 New York Bronx
25	W	F	1965 Gauhati 1982	65	B	M	1973 Tokyo 1978
35	W	M	1966 Los Angeles				Amsterdam 1989
36	B+		1966 Tokyo 1966	68	B	M	1974 Basel 1974
37	W	F	1966 Berlin Tierpark 1967	64	W	F	1974 Gauhati 1974 Nagoya
52	B+	F	1967 Milwaukee 1967	69	B	M	1974 Washington 1975 New York Bronx 1989
38	B	F	1967 Hamburg 1983 Berlin Zoo 1985 Hamburg 1994 Singapore				Toronto
				94	W	M	1974 Gauhati 1974 Calcutta
39	B	M	1967 Basel 1968 Hamburg 1994 Singapore 1994	70	B	M	1974 Gauhati 1977 Kanpur 1992
40	W	F	1967 Berlin Tierpark	155	W	F	1974 Gauhati 1979 Patna
41	B	M	1967 Basel 1969 Stuttgart		W	F	1974 Gauhati 1977
46	W	F	1967 Gauhati 1969 Los Angeles 1988	153	W	F	1974 Gauhati 1976
	W	F	1968 Gauhati 1970				Bhubaneswar
				95	W	F	1974 Gauhati 1974 Calcutta

<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>	<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
71	B	M	1974 Stuttgart 1976 Gelsenkirchen 1977 Sao Paulo	171	W	F	1980 Gauhati
78	B+	M	1975 San Diego WAP 1975	103	W	M	1980 Yangon 1993
79	B	F	1975 Mysore 1979 Toronto	104	W	F	1980 Yangon 1993
80	B	F	1975 Basel 1979 Philadelphia	218	W	M	1980 Gauhati 1985 Madras
	B+		1975 Hyderabad 1975	98	W	F	1980 Beijing
	W	M	1976 Gauhati 1976	102	B+	M	1980 Antwerp 1980
83	B	M	1976 Berlin Zoo 1981 Oklahoma 1983 New York Bronx	106	B	M	1981 Hyderabad
84	B	M	1976 Basel 1977 Gelsenkirchen 1978 Cologne 1987	107	B+	F	1981 Whipsnade 1981
	W	M	1976 Gauhati 1976		W	F	1981 Gauhati 1981
85	B+	M	1976 San Diego WAP 1976	109	B	M	1981 Stuttgart 1983 Rotterdam 1990 Singapore 1994 Chiangmai
91	W	M	1976 Gauhati 1979 Lucknow 1980	108	W	M	1981 Beijing 1981
156	W	M	1977 Gauhati 1979 Patna	110	B	F	1982 Basel
154	W	M	1977 Gauhati 1979 Bhubaneswar		W	M	1982 Gauhati 1982
86	B	M	1977 Stuttgart 1980 Dvur Kralove 1992 Singapore 1992	120	B+	F	1982 Los Angeles 1982
215	W	M	1977 Gauhati 1977 Chandigarh	157	W	M	1982 Patna
168	B	F	1978 Gauhati		W	F	1982 Gauhati 1982
88	B	M	1978 Basel 1978	151	W	M	1982 Gauhati 1983 Delhi
	W	M	1978 Gauhati 1987	194	W	F	1982 Gauhati 1990 Delhi
99	B	F	1978 San Diego WAP		B	M	1982 Gauhati 1990
92	W	F	1978 Gauhati 1979 Lucknow (?)	172	W	M	1982 Gauhati
216	W	F	1978 Gauhati 1978 Chandigarh 1986	112	B	M	1982 San Diego WAP 1983 San Diego 1983 Seoul 1990
87	B	M	1978 Basel 1979 Philadelphia 1982 New York Bronx 1991 Milwaukee	113	B	F	1982 Antwerp
	W	M	1978 Gauhati 1978	111	B	F	1982 Los Angeles 1985 San Diego WAP 1985
96	B	M	1978 Hyderabad 1983 San Diego WAP	122	B	F	1982 Kanpur 1985 Yokohama 1995
97	B	F	1979 Calcutta 1986 Cologne	115	B	M	1983 Whipsnade 1985 Antwerp
217	W	M	1979 Gauhati 1985 Bombay		W	F	1983 Gauhati 1983
89	B	F	1979 Berlin Zoo 1981 Oklahoma 1990 Los Angeles	116	B	M	1983 San Diego WAP 1985 San Diego 1988 Tampa
93	B	F	1979 Stuttgart 1981 Dvur Kralove	117	B	M	1983 Stuttgart 1985 Magdeburg 1985 Yokohama
100	B	M	1980 Basel 1995	121	B+	M	1983 Los Angeles 1983
	W	F	1980 Gauhati 1983	118	B+	F	1984 Philadelphia 1984
61	W	M	1980 Gauhati 1985 Mysore	119	B	M	1984 Basel 1985
169	W	M	1980 Gauhati	150	B	M	1984 Calcutta
	W	F	1980 Gauhati 1986	225	B+	F	1984 San Diego WAP 1984
114	W	F	1980 Kathmandu 1990	129	B	M	1984 Kanpur
101	B	M	1980 San Diego WAP 1982 San Diego 1985 Washington		W	M	1985 Kathmandu 1990
170	W	M	1980 Gauhati	123	B	M	1985 Stuttgart 1987 Cologne
				124	B	M	1985 San Diego WAP 1988 San Diego 1989 Singapore
				125	B	M	1985 Los Angeles 1990 Oklahoma
				127	B+		1985 Berlin Tierpark 1985
				126	B	M	1985 Philadelphia 1987 Miami
				167	B+	F	1986 Dvur Kralove 1986
				130	B	F	1986 San Diego WAP

<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>	<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
131	B	F	1986 New York Bronx	181	B	M	1990 Basel 1991 Nagoya
	W	F	1986 Chiangmai	182	B	F	1990 San Diego WAP 1994 Stuttgart 1994 Berlin Tierpark
	W	M	1986 Chiangmai 1988				
	B	M	1986 Chandigarh	179	W	M	1990 Gauhati
132	B	M	1986 Whipsnade 1987 Chester	183	B	F	1990 Basel 1991 Nagoya
133	B+	F	1986 Los Angeles 1986	184	B	M	1990 San Diego WAP
134	B	M	1986 Antwerp 1990 Rotterdam	185	B	F	1991 Stuttgart 1993 Rotterdam
158	B+	F	1986 Patna 1986	186	B	M	1991 Kanpur
135	B	M	1986 Stuttgart 1989 Nuremberg	203	B	F	1991 Patna
142	B+	M	1987 San Diego WAP 1987	187	B	M	1991 Philadelphia 1992 Buffalo
173	B	M	1987 Gauhati		W	F	1991 Gauhati 1991
138	W	F	1987 Washington	192	W	F	1991 Gauhati
139	W	F	1987 Washington		W	F	1991 Gauhati 1991
143	B	F	1987 San Diego WAP	234	B+	F	1991 Whipsnade 1991
140	B	M	1987 Kanpur	188	B	M	1991 San Diego WAP
136	W	M	1987 San Francisco 1996	189	B	F	1991 Toronto 1994 Cincinnati
137	W	F	1987 San Francisco				
174	W	M	1987 Gauhati 1995 Released in wild (?)	195	B	F	1992 Basel 1993 Nuremberg
141	B	M	1987 Dvur Kralove 1989 Liberec	196	B+	F	1992 Antwerp 1992
145	B	M	1988 Whipsnade 1990 Dvur Kralove	197	B+	M	1992 San Diego WAP 1992
144	W	F	1988 Berlin Zoo	198	B+	F	1992 San Diego WAP 1992
146	B	M	1988 San Diego WAP 1990 San Diego	199	B+	M	1992 Washington 1992
159	B	F	1988 Patna	200	B+	M	1992 San Diego WAP 1992
147	B	M	1988 Philadelphia 1989 Cincinnati	201	B	F	1992 Antwerp
	W	M	1988 Gauhati 1988	202	B	M	1992 Delhi
175	W	F	1988 Gauhati 1993 Trivandrum	205	B+	M	1993 Washington 1993
148	B	F	1988 Basel 1990 Munich	206	B	M	1993 Basel 1995 Singapore
152	B	M	1988 Stuttgart 1990 Munich	207	B	F	1993 Whipsnade 1993
149	B	F	1988 Basel 1988	204	W	F	1993 Stuttgart
176	B	M	1989 Gauhati	208	B+	M	1993 Antwerp 1993
163	B+	F	1989 San Diego WAP 1989	209	B	F	1993 San Diego WAP
160	B	M	1989 Kanpur	210	B	F	1993 Basel
	W	M	1989 Gauhati 1989	220	B	M	1994 San Diego WAP
177	W	M	1989 Gauhati 1993 Trivandrum	221	B+	M	1994 New York Bronx 1994
178	W	M	1989 Gauhati 1995 Released in wild (?)	222	B	M	1994 Toronto
	W	M	1989 Gauhati 1989	223	B	F	1994 Philadelphia
161	B	F	1989 New York Bronx 1993 Oklahoma	224	B	M	1994 San Diego WAP
162	B	M	1989 Whipsnade				
166	B	M	1990 Berlin Tierpark 1993 Berlin Zoo				
180	B	M	1990 San Diego WAP				
	W	M	1990 Gauhati 1990				
193	W	F	1990 Munich				
164	W	M	1990 Singapore				
165	W	F	1990 Singapore 1991				
190	W	M	1990 Fort Worth				
191	W	F	1990 Fort Worth				

**List of specimens of *Rhinoceros unicornis* in captivity**

**Amityville, Long Island, NY, USA**

*Frank Buck's Jungle Camp*

The animal dealer Frank Buck kept some animals at this zoo, which was open to the public. It grew out of Buck's Jungle Camp which operated during the second year at Chicago's Century of Progress (1934), in partnership with T.A. Loveland. The zoo opened on Long Island, between Amityville and Massapequa, at

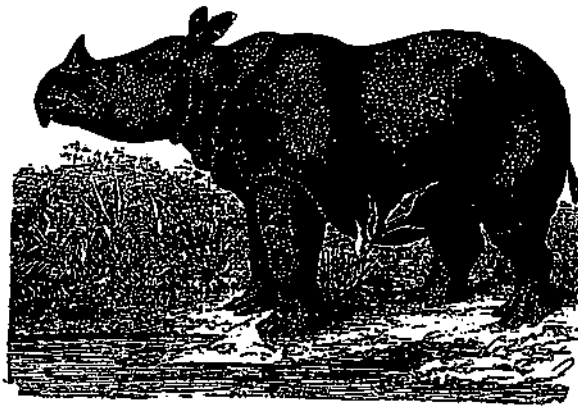


Fig. 18. Rhinoceros at Amsterdam published by Schlegel (1872).

the end of 1934 or in 1935. It was about 35 acres in size. In 1941, Buck withdrew and the zoo continued to be operated by Loveland for some years, probably closing during the second World War (Buck and Fraser 1941, Reynolds, in litt.).

**F 1935 September 13 – 1936 February †**  
 'One-Eared Lucy'. Frank Buck captured this young rhinoceros during the filming of his third movie *Fang and Claw* (released in December 1935). In the movie, Buck shoots a tiger which attacks a rhinoceros calf. In the process, the calf was injured and one of its ears almost torn off. Buck removed the ear and treated the wound. From Assam, the rhinoceros was transported to Buck's compound at Katong, Singapore, where it was loaded on the Isthmian freighter *Steel Navigator*. The ship docked at St George, the Staten Island port of New York City on 13th September, 1935 and the animal was transported by truck to Amityville.

Buck kept the rhinoceros for five months while trying to find a buyer. Buck and Fraser (1941: 270) state, "she became a pet of mine, and when out of her pen waddled about after me like a dog". Buck was ready to ship the animal to St Louis, but she died after eating some old, wet, moldy hay which had been left in its pen, causing her stomach to swell during the night (Buck and Fraser 1941: 271).

## Amsterdam, The Netherlands

Zoological Garden 'Natura Artis Magistra',  
 Artis Zoo

**1864 June 19 – 1873 March 21 †**

This animal was purchased for 4710 guilders from E. Fonsacq in Bordeaux, when it was not quite adult (Noll 1873: 51). Writing in 1873, Noll stated that the rhinoceros was still alive in Amsterdam, adult, and quite tame towards its keepers. The date of arrival is uncertain. Swierstra (1888: 19) said the first specimen arrived in 1864, and the date 19th June 1864 is given by Noll (1873: 51). However, some other recent sources record its arrival as 1867, e.g., 20th June, 1867 (Kourist 1970: 147) and 1867 (Nieuwendijk 1970: 96). I would suggest that we go by Noll's, probably first-hand, information.

Nieuwendijk (1970: 96) stated that this animal possibly was a Javan rhinoceros (*Rhinoceros sondaicus*) based on an illustration published by Schlegel (1872: 134) in a description of the Amsterdam Zoo (see Kourist 1970, fig. 13; see Fig. 18). Schlegel did not say where he obtained the illustration, nor did he mention the presence of any kind of rhinoceros in Amsterdam. Additional evidence is needed before we can follow Nieuwendijk's suggestion on the supposed specific identity of the animal. The specimen apparently was not preserved. The current Zoological Museum in Amsterdam does not have a specimen of *Rhinoceros unicornis*. It possesses several skulls and a skeleton of *Rhinoceros sondaicus*, but most are without data (there are some well-documented specimens from Indonesia).

**M 1973 July 10 – 1976 April 22**

'Kumar'

60-BER W 1

From Berlin Zoo. In 1973, something frightened it in its enclosure resulting in a head wound. To Whipsnade.

**F 1976 April 22 – 1985 April 25 †**

'Mohini'

8-ASSAM 3

From Whipsnade. Died of pneumonia.

**M 1978 December 12 – 1989 May 24 †**

'Saitaro'

65-TOKYO 2

From Tokyo Tama (Redeker 1982). Died after a prolapse operation.



## Antwerp, Belgium

*Société Royale de Zoologie d'Anvers*  
*Jardin Zoologique*

The old records of the zoo were destroyed during the second world war (Gijzen 1960). After 1960, some of the rhinos were also shown in Planckendael, a zoo under the same management outside the city.

### *M 1861 – 1898 September 7 †*

Year of arrival is uncertain. Reynolds (1961a: 21) gives 'circa 1858', based on Flower (1931: 203), who stated that the animal was about 40 years old when it died in 1898. Gijzen (1960: 16) gives 1861, perhaps according to Brehm (1877: 515), who stated that it had been in Antwerp for 16 years (and that it was 18 years old). We are certain it was present in 1861, since it was mentioned by Gens (1861: 93), who added that the rhinoceros was about five years old on arrival. It was a huge and good-natured animal (Noll 1873: 51). There is an illustration in Brehm (1877, facing p. 514) by Robert Kretschmer. This artist had made his preliminary sketches inside the animal's enclosure, maintaining that it was quite tame and docile (Brehm 1877: 533). Kourist (1970: 147, fig. 7) owns a pastel drawing made in 1865 by the Berlin artist Paul Meyerheim (1842-1915). A. Heins executed two drawings of this rhinoceros around 1880 (kept in the Koninklijke Bibliotheek Albert I, Brussels, Belgium, No. F.3436/7, one illustrated in Rookmaaker and Reynolds 1985, fig. 8; the other, see Fig. 9). The Museum of the Institut Royal des Sciences Naturelles de Belgique, Brussels, received the remains on 30 November, 1898, and still has the mounted hide and skeleton (No. 1208), although it was said to be a female specimen. See Fig. 19.

### *F 1871 September*

Arrived at Berlin Zoo via an auction at Antwerp Zoo [see entry for Antwerp in Chapter 6 (*D. sumatrensis*) on auctions]. The stay in Antwerp is not substantiated.

### *1902*

Peel (1903: 61) saw a rhinoceros sometime during this year. No other information has come to light.



Fig. 19. Antwerp's male Indian rhinoceros 1861-1898, drawn by Robert Kretschmer before 1877.

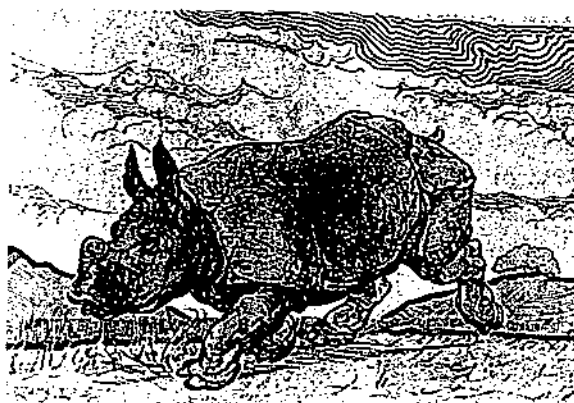


Fig. 20. Antwerp's Indian rhinoceros in 1909, drawn by Alfred Ost.

### *1907 April/May – (?) 1910*

Imported by Hagenbeck from Nepal when it was about six months old. The zoo bought it for 25,000 francs (Maes 1910). Flower (1908: 11) saw it in transit at Port Said in April 1907, together with three others imported by Hagen-

beck [it was one of four specimens]. Marx and Koch (1910: 161) said that it was still alive in 1910, but most probably it died soon after. It was drawn by Alfred Ost (1884-1945) in 1909 (Schrevers 1984: 32; see Fig. 20).

*M* 1971 March 23 - 1988 October 16 †  
'Yassam' 73-INDIA 1

From Gauhati. Exhibited both in Antwerp and in Planckendael. Died of heart disease. The Museum of the Institut Royal des Sciences Naturelles de Belgique, Brussels has the stuffed hide (No. 21578, entered 19th October 1988).

*F* 1972 September 5 -  
'Zutuma' 55-BASEL 11  
From Basel. Exhibited both in Antwerp and Planckendael.

*M* 1980 November 3 - 1980 November 7 †  
102-ANTW 1  
Born to Yassam (73) and Tutuma (55). The baby died because the mother lacked sufficient milk.

*F* 1982 August 9 -  
'Johanna' 113-ANTW 2  
Born to Yassam (73) and Tutuma (55).

*M* 1985 October 3 -  
'Bheema' 115-WHIP 4  
From Whipsnade. A picture taken on arrival in Planckendael was shown in Douliez (1986).

*M* 1986 October 24 - 1991 October 9  
'Nico' 134-ANTW 3  
Born to Yassam (73) and Tutuma (55). Gestation 494 days. Weight approximately 60 kg. There is a photograph in *Zoo*, Antwerp, 52 (3), January 1987, p. 6. To Rotterdam (Struyf 1991 with pictures).

*F* 1992 February 3 - 1992 February 3 †  
196-ANTW 4  
Stillborn to Bheema (115) and Johanna (113).

*F* 1992 November 15 -  
'Teja' 201-ANTW 5  
Born to Bheema (115) and Zutuma (55). Gestation 476 days, weight at birth 65 kg. Pictures of the birth were published in *Zoo*, Antwerp, 58 (3), Winter 1993, pp. 10-11 and 58 (4), Spring 1993, p. 10 and in Struyf (1993). The zoo also produced a 19.5 minute video of the

birth procedures in 1992 (entitled: 'Teja, of de geboorte van een Indische neushoorn').

*M* 1993 August 4 - 1993 August 4 †  
208-ANTW 6  
Stillborn to Bheema (115) and Johanna (113).

## Bangalore, Karnataka, India

### Lal Bagh Park

In this park, there is a 100 ha botanical garden laid out by Haidar Ali in 1760. I had a picnic in there in 1992. It is a place to escape from the busy town and there was a horticultural exhibition, but not a zoo. Even Loisel (1912, III: 21) does not list an animal collection in Bangalore in his summary of Indian zoos.

### 1913

Flower (1914: 40) saw an empty enclosure, which supposedly had been inhabited by a rhinoceros. There are no further details about this animal.

## Barpali, Orissa, India

### Collection of the Rajah of Barpali

### 1875

While in Barpali, a small town near Sambalpur in Western Orissa, Ball (1877) was told that "on the occasion of a marriage between a daughter of one of his ancestors and the Bama Raja, the bride's dowry had been a Rhino, which before that had for some years been kept at Barpali". Ball mentions this in his discussion on the distribution of *Rhinoceros sondaicus*, but it is more likely that this was an Indian rhinoceros.

## Basel, Switzerland

### Zoologischer Garten

Basel Zoo imported a pair of Indian rhinoceroses in 1951 and 1952. Since this pair produced their first calf in 1956, the zoo has been exceptionally successful in breeding and rearing this species of rhinoceros (see Lang 1961, 1967, 1975, and Blaszkiewicz 1980: 73-82). Since March 1953 they have been kept in the

elephant house. (See Figs. 4, 15, 17, 21, 22, 166).

*M* 1951 May 30 – 1964 November 25 †  
'Gadadhar' 5-KAZ 4  
Caught in Kaziranga by Peter Ryhiner, as told by Ryhiner and Mannix (1959) and Hediger (1955: 28 ff.). This male and the female Joy-mothi (see next entry) were named after a 17th century royal couple from Assam. Some photographs of this animal can be found in Lang (1957, 1961), Wackernagel (1962) and *Das Tier*, June 1963. It died of lung fibrosis (post-mortem in Lang 1966).

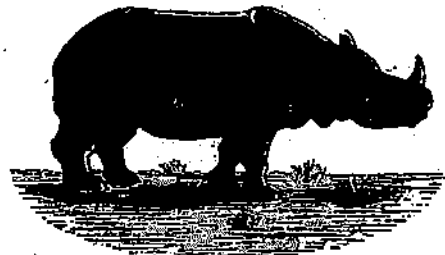
*F* 1952 July 8 – 1983 November 10 †  
'Joymothi' 7-KAZ 5  
Caught in Kaziranga at the age of about five years by Peter Ryhiner (see Ryhiner and Mannix 1959, and Hediger 1955: 36-41). This is the mother of the first baby born in a European zoo. The animal was very tame and would allow people to sit on her back (Lang 1961: 373, with several photographs). A photograph was published by Wackernagel (1962), and pictures of her mating with Arjun were displayed by Speiser (1973). She was euthanized.

*M* 1956 September 14 – 1959 June 25  
'Rudra' 14-BASEL 1  
Born to Gadadhar (5) and Joymothi (7). Gestation 474 days, weight 60.5 kg (Lang 1957, with many photographs; Lang 1961, fig. 21). Two photographs by Pierre Brouard were published in *International Zoo News* April/May 1976, 23 (3): 24, 34, and others by Wackernagel (1962). To Milwaukee.

*F* 1958 August 17 – 1973 January 4 †  
'Moola' 17-BASEL 2  
Born to Gadadhar (5) and Joymothi (7), gestation 478 days, weight 67 kg (Lang 1958, 1961, with photographs of the birth). Other photos can be found in Wackernagel (1962). The animal died of lung fibrosis and the hide was mounted for the Natural History Museum in Bern, Switzerland (Küng 1978).

*M* 1962 August 31– 1963 October 10  
'Lasai' 26-BASEL 3  
Born to Gadadhar (5) and Joymothi (7), gestation 479 days, 68 kg. The placenta was described by Ludwig and Müller (1965). There is a photograph on the cover of *Zolli*, Basel, No. 11, 1963. To San Diego.

# 100 JAHRE



# ZOO BASEL

Der Zoologische Garten Basel,  
gegründet 1874, umfasst heute 13,35 ha.

**3500 TIERE**  
aus sechs Kontinenten leben bei uns in  
**650 ARTEN**

1956 kam hier das erste in einem Zoo  
geborene Panzernashorn zur Welt, elf  
weitere folgten.

Fig. 21. Basel – 100 years (1974).

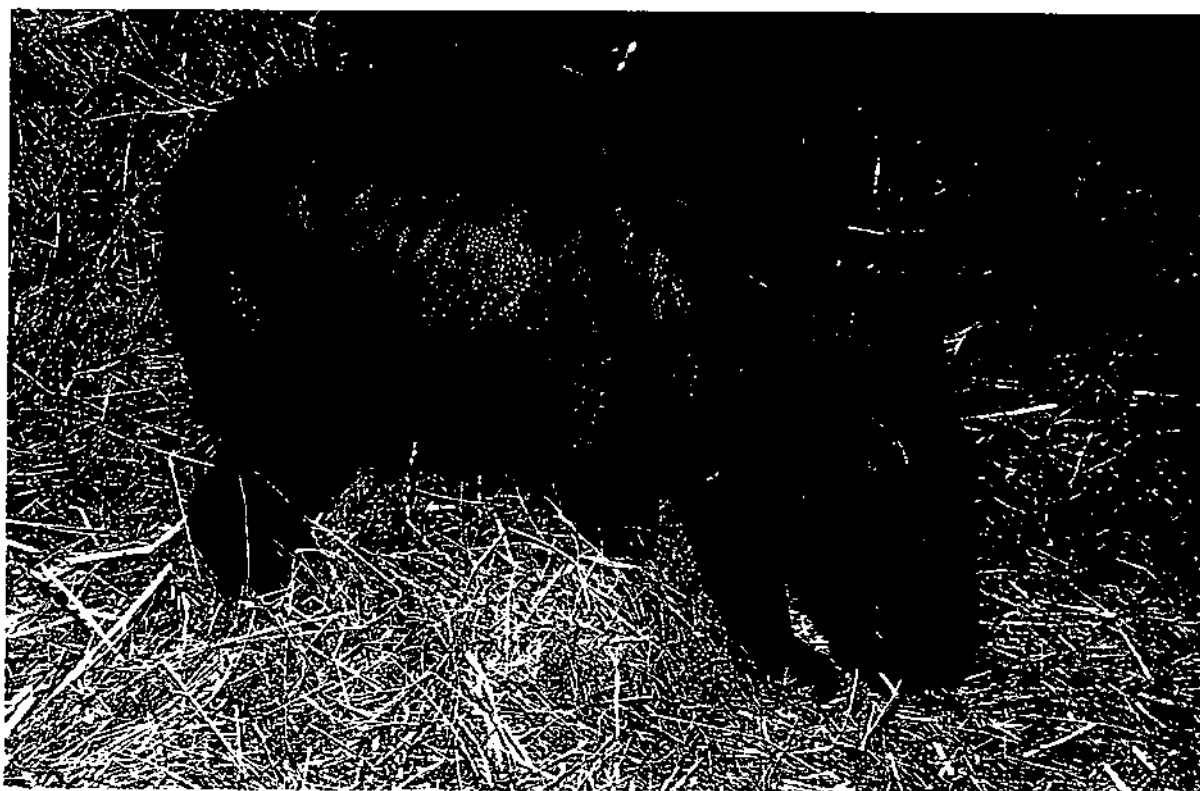
*F* 1962 September 21 – 1963 May 28  
'Nepali II' 16-KAZ 7  
From Hamburg on loan for breeding and returned there. It was shown again from 3rd November, 1965 to 13th April, 1966, when it was returned to Hamburg.

*M* 1963 March 9 – 1964 September 29  
'Khunlai' 27-BASEL 4  
Born to Gadhadar (5) and Moola (17), gestation 486 days, weight 59 kg. There are photographs of it in *Zolli*, Basel No. 10: 5, April 1963, and No. 11, front cover, 1963. To Paris Vincennes.

*F* 1964 June 12 – 1965 July 5  
'Miris' 31-BASEL 5  
Born to Gadadhar (5) and Joymothi (7), gestation 476 days, weight 70.5 kg (Lang, 1964 with photo). The placenta was described by Ludwig and Villiger (1965). To Berlin Zoo. It was returned to Basel on loan for breeding from 8th August, 1970 to 28th April, 1971 and again from 10th June, 1974 to 6th May, 1975.



*Fig. 22. Basel's Indian rhinoceros.*



*Fig. 23. Indian rhinoceros born at Berlin Tierpark, 21st January 1995.*

- M* 1965 July 8 – 1983 April 15 †  
'Arjun' 18-KAZ 8  
From Berlin Zoo (Lang, 1965 with photo). It was illustrated in Blaszkiewicz (1980: 79, figs. 1, 2). It had to be euthanized due to foot troubles and chronic pulmonary emphysema.
- F* 1965 August 25 – 1968 May 29  
'Nanda' 34-BASEL 6  
Born to Gadhadar (5) and Moola (17), gestation 475 days, weight 69 kg. To Stuttgart. It was back in Basel on breeding loan from 3rd June, 1969 to 9th June, 1970 and again from 19th July, 1973 to 24th October, 1973.
- M* 1967 July 7 – 1968 September 3  
'Pandur' 39-BASEL 7  
Born to Arjun (18) and Joymothi (7), gestation 489 days, weight 72.5 kg. There is a photograph in *Zolli*, Basel, No. 20:12, 1968. To Hamburg.
- M* 1967 December 22 – 1969 June 3  
'Puri' 41-BASEL 8  
Born to Arjun (18) and Moola (17), gestation 486 days, weight 78 kg. To Stuttgart.
- M* 1969 April 27 – 1970 October 6  
'Ruedi' 44-BASEL 9  
Born to Arjun (18) and Joymothi (7), gestation 474 days, weight 79 kg. To Houston.
- F* 1969 October 5 – 1970 October 6  
'Randa' 45-BASEL 10  
Born to Arjun (18) and Moola (17), gestation 478 days, weight 81 kg. To Houston.
- F* 1971 August 11 – 1972 September 5  
'Tutuma' 55-BASEL 11  
Born to Arjun (18) and Moola (17), gestation 476 days, weight 79 kg. To Antwerp.
- F* 1971 August 24 – 1996 February 17 †  
'Tanaya' 56-BASEL 12  
Born to Arjun (18) and Joymothi (7), gestation 481 days, weight 69 kg. She produced six babies in Basel (Rüedi 1990 with photographs).
- M* 1974 January 3 – 1974 January 3/4 †  
68-BASEL 13  
Born to Arjun (18) and Joymothi (7), gestation 473 days, weight 51 kg. The animal did not survive and died either the same day or the next from anemia. Date of death recorded as 3rd January in Basel Zoo (1988).
- F* 1975 October 10 – 1979 November 6  
'Xavira' 80-BASEL 14  
Born to Arjun (18) and Joymothi (7), gestation 474 days, weight 69.5 kg. To Philadelphia.
- M* 1976 March 26 – 1977 November 2  
'Yamatari' 84-BASEL 15  
Born to Arjun (18) and Tanaya (56), gestation 479 days, weight 59 kg. To Gelsenkirchen.
- M* 1978 January 26 – 1979 November 6  
'Assam' 87-BASEL 16  
Born to Arjun (18) and Tanaya (56), gestation 465 days, weight 68 kg. A photograph is on the cover of *Zolli*, Basel, No. 40 (1978). To Philadelphia.
- M* 1978 July 16 – 1978 November 19 †  
'Angkor' 88-BASEL 17  
Born to Arjun (18) and Joymothi (7), gestation 485 days, weight 55.5 kg. It died of torsio colio.
- M* 1980 January 11 – 1995 November 13 †  
'Chitawan' 100-BASEL 18  
Born to Arjun (18) and Tanaya (56). Wacker-nagel (1985) published some photos.
- F* 1982 January 16 –  
'Ellora' 110-BASEL 19  
Born to Arjun (18) and Tanaya (56), illustrated in *Zolli*, Basel, No. 50, May 1983.
- M* 1984 February 29 – 1985 March 11 †  
'Gandak' 119-BASEL 20  
Born to Arjun (18) and Tanaya (56), as described by Rüedi (1985: 13). Weighed 77 kg at birth. There is a photograph in *Zolli*, Basel, No. 52: 2, May 1984. The animal fell into an empty pool and fractured vertebrae; it had to be euthanized.
- F* 1988 October 4 – 1990 July 11  
'Nasi' 148-BASEL 21  
Born to Chitawan (100) and Tanaya (56). Gestation 472 days, weight 66 kg (see Rüedi 1989). To Munich.
- F* 1988 December 11 – 1988 December 11 †  
149-BASEL 22  
Foetus was aborted after 242 days. Father was Chitawan (100), mother Ellora (110).

*M* 1990 May 31 – 1991 December 1  
 'Nandi' 181-BASEL 23  
 Born to Chitawan (100) and Ellora (110), illustrated by Rüedi (1991). To Nagoya.

*F* 1990 October 23 – 1991 December 1  
 'Nilgiri' 183-BASEL 24  
 Born to Chitawan (100) and Tanaya (56). There is a photograph in Rüedi (1991). To Nagoya.

*F* 1992 January 23 – 1993 July 8  
 'Purana' 195-BASEL 25  
 Born to Chitawan (100) and Ellora (110), gestation 466 days, birth weight 70.5 kg. To Nuremberg.

*M* 1993 February 22 – 1995 April 28  
 'Quilon' 206-BASEL 26  
 Born to Chitawan (100) and Tanaya (56). To Singapore.

*F* 1993 October 10 –  
 'Quetta' 210-BASEL 27  
 Born to Chitawan (100) and Ellora (110).

## Beijing, China

### Zoological Gardens

*F* 1959 – 1961 (?) †  
 Dates are uncertain. C. Jarvis remarked that the zoo had once had a female (Rookmaaker and Reynolds 1985: 153). The animal was probably imported together with the male (72) in July 1959, but only survived for a short time.

*M* 1959 July – 1978 November 12 †  
 'Xiangka' 72-NEPAL 6  
 Caught in Nepal, about one year old on arrival. It died of a gastric ulcer and chronic gastritis (see Fig. 24).

*F* 1980 September 10 –  
 'Bhunti' 98-NEPAL 7  
 Caught in Nepal.

*M* 1981 October 20 – 1981 November 26 †  
 'Kumat' 108-NEPAL 11  
 Caught in Nepal. Died of malnourished exhaustion due to large numbers of parasites.

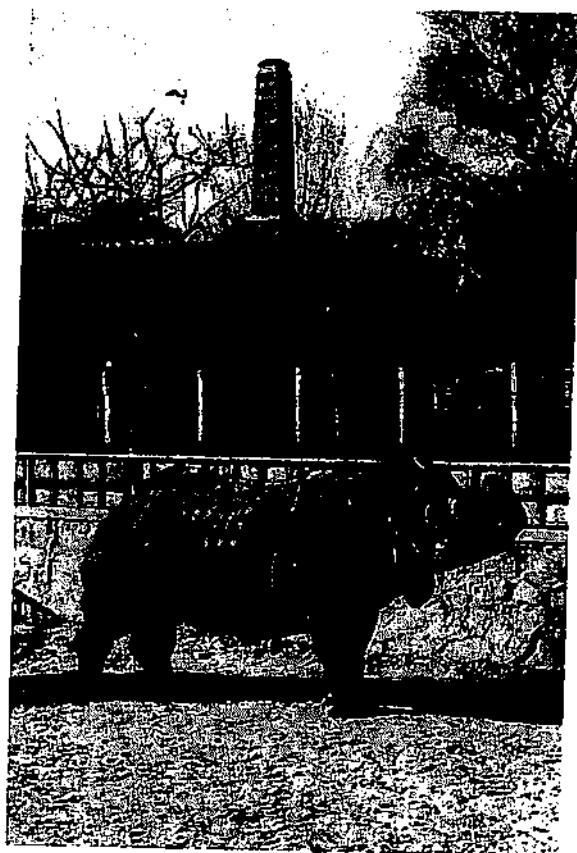


Fig. 24. Postcard of Indian rhinoceros at Beijing (male 72) taken around 1970.

## Berlin, Germany

### 1. Zoologischer Garten

Called 'Berlin Zoo' to distinguish it from the Tierpark in the same town. This is the oldest existing zoo in Berlin, founded in 1844. It is located in the former West Berlin. A list of rhinoceroses exhibited up to 1888 was provided by Schlawe (1969: 28). Rhinos were shown in various buildings: in the elephant pagoda up until 1943, in a new rhinoceros/tapir house built in 1964, and in a second rhinoceros building opened in 1986/1987 (Klöß and Klöß 1990: 70, 263-266).

*F* 1871 September 21 – 1872 September 19  
 Imported via Antwerp, first brought to London by Captain Harrison on the *Lady Melville* in 1871. It was traded with Jamrach in London for the following pair, but the final destination remains unknown.

*M* 1872 September 19 – 1909 October 26 †  
 Bought together with following female from

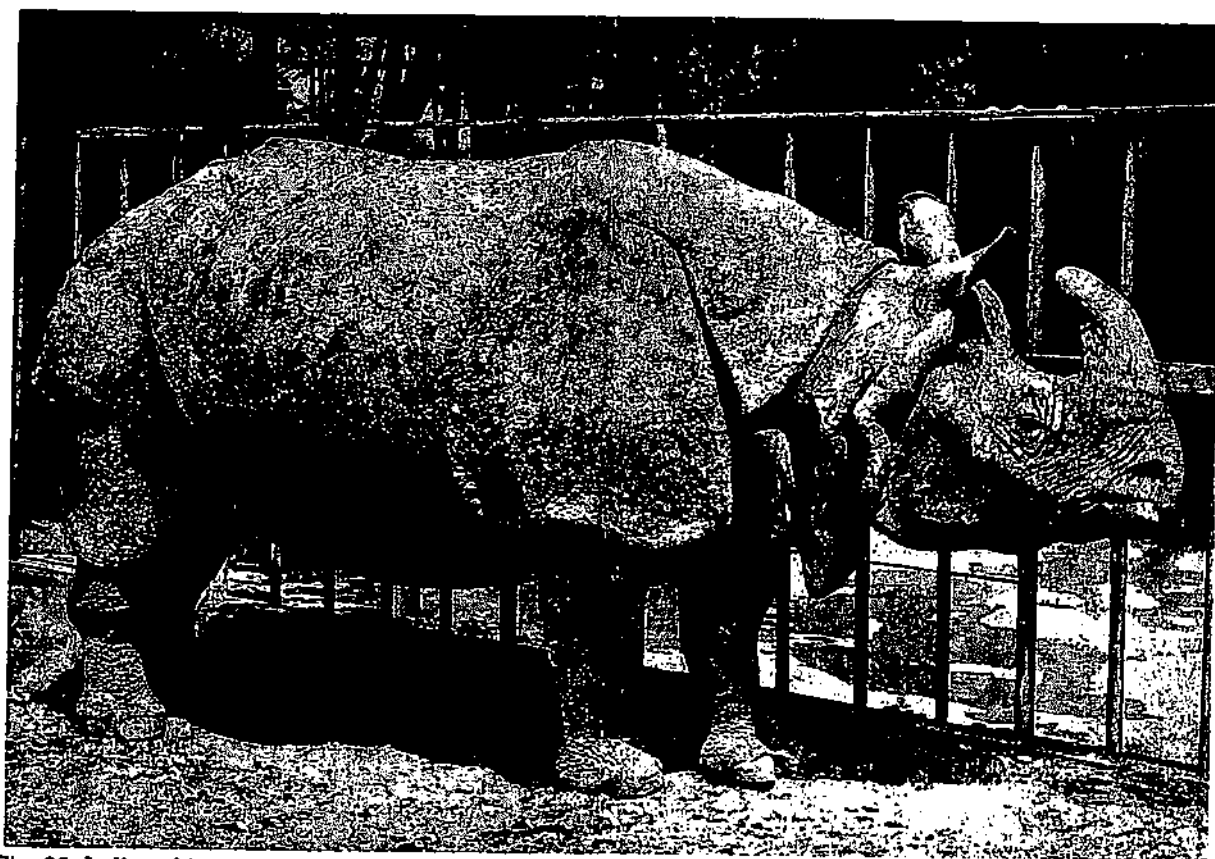


Fig. 25. Indian rhinoceros male at Berlin Zoo in 1899.

Charles Jamrach for 8000 Thaler. On arrival, it was 2.75 m long, 1.3 m high, and about three years old (Noll 1873: 52). The remains are preserved in the Zoological Museum in Berlin (Schlawe 1969: 28). A photograph of this specimen was published by Heck (1899: 72), while it was also used on a postcard (Heikamp 1980, fig. 21). This male was often seen fighting with the female, now known to be common, preliminary to mating. On 30th June, 1881, the male hit the female on the side, and the keepers decided to separate the two animals (Opperman 1994: 69-72). This incident was depicted by Paul Meyerheim in the *Illustrierte Zeitung* of 1881 (reproduced by Klös 1969: 73, Kourist 1970, fig. 8, Heikamp 1980, fig. 22, Klös *et al.* 1994: 86). Another drawing of the rhinoceros pair by Paul Meyerheim dated 1872 can be found in Heikamp (1980, fig. 23). See Fig. 25.

*F 1872 September 19 – 1896 April 9*

Imported together with the above male. A photograph of this animal in its pool can be seen in Heck (1899: 73). To Frankfurt am Main.

*F 1874 August – (?) 1884 †*

The actual dates of arrival and death were not recorded, which is very uncharacteristic of Berlin Zoo. Its early history can be pieced together from publications by Sclater (1876a: 650) and Jamrach (1875). It was caught when it was only a few months old in the 'district of Mooneypoor', *i.e.*, in the present state of Manipur in the extreme North-East of India. It was shipped from Calcutta in April 1874 by agents employed by William Jamrach, the London-based animal dealer. It may have arrived in London in May or June of that year. Apparently, Jamrach did not deposit it temporarily in Regent's Park, but probably kept it for some time in his own facilities. While in London, it was seen by Abraham D. Bartlett (1812-1895), Philip L. Sclater (1829-1913) and Alfred H. Garrod (1846-1879), all associated with London Zoo. Soon after, it was bought by Heinrich Bodinus (1814-1884), director of the zoo in Berlin. It probably arrived in Berlin around August 1874 where its exhibition, in an enclosure next to the pair of rhinos listed above, was uneventful. It was seen by a Mr. Bau in the autumn of 1884, according to Schlawe (1969: 28). Its remains were not preserved in the museum in Berlin.

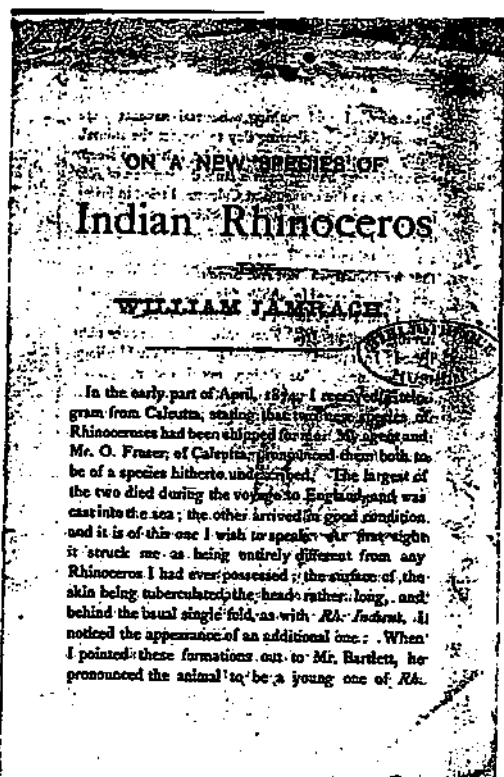


Fig. 26. Facsimile copy of Jamrach's green description of *Rhinoceros Jamrachi*, 1875.

The identity of this rhinoceros was the subject of much discussion and speculation (cf. Reynolds 1961c, Schlawe 1969: 28, Rookmaaker 1977, 1983b). In his report delivered on 15th June 1875 in London, Sclater (1876a: 650) said that he exhibited a drawing "made while the animal was in Hamburg" (when?). Unfortunately, the whereabouts of this drawing, if it still exists, are no longer known. Sclater continued that the specimen was remarkable "for its large head, long ears, and the numerous boss-like excrescences which cover its body". He identified it as a young *Rhinoceros sondaicus*. The same conclusion was reached by Bartlett, as reported by Jamrach (1875), but who, however, did not agree with this, recognizing both the characteristics mentioned by Sclater, and an additional fold at the nape of the neck. He went to Berlin to see the animal again, and on 8th October, 1875 [not 1874] he published the curious description of *Rhinoceros Jamrachi*, on a green sheet of paper mentioned in a footnote by Sclater (1876a: 650). Rookmaaker (1983b) quoted and discussed a [only extant?] copy of this description at the library of the Muséum National d'Histoire Naturelle in Paris (see Fig. 26 for facsimile). In 1880, Sclater was in Berlin, when

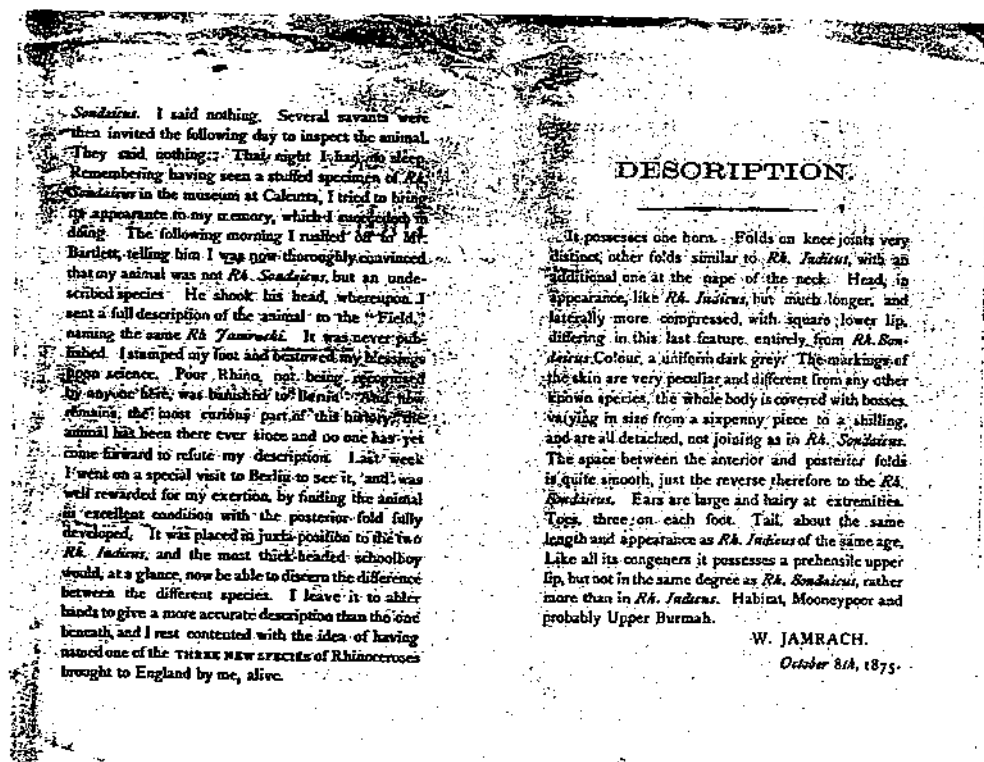


Fig. 26b.



he changed his mind about this rhinoceros, and decided that it was Indian, because it was too large to be *Rhinoceros sondaicus*, and "did not show the peculiar shoulder fold that characterizes that species" (Sclater 1880).

There is a print published by Gustav Mützel in the *Gartenlaube* of 1882, which shows this rhinoceros from the rear (illustrated in Schlawe 1969, fig. 20, Heikamp 1980, fig. 24, Rookmaaker 1983b: 44; see Fig. 27). Rookmaaker (1977) identified the animal as an Indian rhinoceros, because it had a short horn which would have been absent in a female Javan rhino, and because the rhinoceros in this print does not clearly show the saddle in the neck typical of *Rhinoceros sondaicus* (however, others claim it is there, see Rookmaaker 1983a: 127 for various opinions). As there is no additional evidence, I would still adhere to that opinion.

*M* 1959 September 22 – 1965 July 8  
'Arjun' 18-KAZ 8  
Caught in Kaziranga, as a gift from the German lottery. It was seven years old on arrival (Klös 1959, with two pictures). Photograph in Blaszkiewicz (1991b, fig. 5). To Basel.

*F* 1965 July 6 – 1993 March 2 †  
'Miris' 31-BASEL 5  
From Basel. It returned to Basel on loan for breeding from 8 August, 1970 to 28 April, 1971 and again from 10th June, 1974 to 6th May, 1975. Photograph in Klös (1969: 204).

*M* 1965 August 6 – 1993 December 9 †  
'Gauhati' [Mohan] 32-HAMB 1  
From Hamburg. Photograph in Klös (1969: 204) and Klös *et al.* (1994: 219).

*M* 1972 April 4 – 1973 July 10  
'Kumar' 60-BER W 1  
Born to Arjun (18) and Miris (31), gestation 477 days (Blaszkiewicz 1980: 85, figs. 3,4). To Amsterdam.

*M* 1976 February 18 – 1981 July 10  
'Heiner' 83-BER W 2  
Born to Arjun (18) and Miris (31), gestation 471 days. Klös *et al.* (1994: 218) published a photograph of the calf with its mother. To Oklahoma.



Fig. 27. Berlin 1882, print by Gustav Mützel, showing on the right the animal of uncertain identity.

*F* 1979 August 13 – 1981 July 10  
'Terai' 89-BER W 3  
Born to Gauhati (32) and Miris (31). Heikamp (1980, Fig. 25) presents a photograph. To Oklahoma.

*F* 1983 April 12 – 1985 June 13  
'Shita' 38-HAMB 2  
From Hamburg, to which it returned.

*F* 1988 May 15 –  
'Narayani' 144-NEPAL 17  
Caught in Nepal, donated by the King of Nepal. It was about six months old on arrival. Photographs in Blaszkiewicz (1991a: 42) and Klös *et al.* (1994: 219).

*M* 1993 June 21 –  
'Belur' 166-BER E 2  
From Berlin Tierpark.

## 2. Tierpark

The rhinos were shown in an enclosure near the main gate until 1991, in which year they were transferred to the new elephant house (Blaszkiewicz, 1992). Blaszkiewicz (1991b) discussed the Indian rhinoceroses from the Tierpark (see Fig. 23: recent birth, not listed).

*F* 1966 August 6 – 1967 January 9 †  
'Kanchi' 37-NEPAL 1  
Caught in Nepal (dealer George Munro, Calcutta). It was about three months old on arrival. It was mentioned by Blaszkiewicz (1991b, fig. 1). It died of enteritis. The skull is preserved in the Zoological Museum of Berlin (No. 51812).

*F* 1967 August 1 –  
 'Kumari' 40-NEPAL 2  
 Caught in Nepal (dealer George Munro), being about three months old on arrival. It was mentioned by Blaszkiewitz (1991b, figs. 2,3,4,7). Kuckelkorn and Dathe (1990) analyzed her progesteron as a marker for gestation.

*M* 1971 April 24 – 1996 December 23 †  
 'Mysore' 42-MYSO 1  
 From Mysore. It is illustrated in Blaszkiewitz (1991b, figs. 3,4,8). The animal grew a small third horn on the shoulders (Blaszkiewitz 1986). It was euthanized.

*M* 1985 September 23 – 1985 Sept. 23 †  
 127-BER E 1  
 Stillborn to Mysore (42) and Kumari (40), gestation 484 days, birth weight 44 kg.

*M* 1990 January 1 – 1993 June 21  
 'Belur' 166-BER E 2  
 Born to Mysore (42) and Kumari (40), gestation 471 days. Illustrated in Blaszkiewitz (1991b, figs. 5,6,7). To Berlin Zoo.

*F* 1994 October 11 –  
 'Jhansi' 182-SDWAP13  
 From Stuttgart.

### Bhubaneswar, Orissa, India

#### Nandankanan Biological Park

*F* 1976 April 8 –  
 'Numuli' 153-KAZ 21  
 From Gauhati. It was one year and seven months old on arrival. Indian studbook (Kanpur Zoo 1993) No. NR-09, see Fig. 28.



Fig. 28. Female Indian rhinoceros at Bhubaneswar, February 1993.

*M* 1979 December 2 –  
 'Nandan' 154-KAZ 22  
 From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-13.

### Bombay, Maharashtra, India

#### Zoological Gardens

This zoo is located in Victoria Gardens. The Indian studbook (Kanpur Zoo, 1993) locates the 1985 animal in a garden called 'Veeramati Jijibhai Bhosale Udayan', which could be the same locality.

In June 1958, Osman Hill (1958) received two horn samples taken from a rhinoceros at Bombay Zoo. The first sample was taken from the usual horn which had been completely rubbed down, while the second was "from an irregular horny growth which had arisen between the base of the normal horn and the forehead, approximately mid-way". These observations could refer to either of the two specimens living in Bombay Zoo in 1958.

*M* 1952 April 14 – 1980 September 14 †  
 'Lacit' 62-ASSAM 11  
 Presented to the zoo. It died of squamous cell carcinoma of the upper jaw.

*F* 1958 May 12 – 1958 December 15 †  
 Presented to the zoo.

*M* 1985 February 25 –  
 'Shiva' 217-ASSAM 28  
 From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-18.

### Brownsville, TX, USA

#### Gladys Porter Zoo

*F* 1972 April 6 – 1974 November 22  
 'Rhonda' 45-BASEL 10  
 From Houston. To Los Angeles.

*M* 1973 September 12 – 1973 December 3 †  
 'Radjah' 81-ASSAM 13  
 From Gauhati (dealer Zeehandelaar). It died of intestinal complications.

**Buffalo, NY, USA**

*Buffalo Zoological Gardens*

*M* 1992 July 21 –  
'Dhaulagiri'

From Philadelphia.

187-PHIL 4

**Cairo, Egypt**

*Giza Zoological Gardens*

*M* 1949 – 1955 †

Caught in Kaziranga, together with the following female. Died of poisoning in the early spring of 1955.

*F* 1949 – 1955 †

Imported from Kaziranga. Died of poisoning in the early spring of 1955.

**Calcutta, West Bengal, India**

*1. Alipore Zoological Gardens*

*F* 1877 April 7 – 1880 May †

The arrival was noted in a list of animals from Calcutta Zoo published in 1878 (Anonymous 1878: 29), where it is stated that it was presented by the Maharajah of Dumraoh. Dumraoh is a town on the Ganges River, in Bihar, west of Patna. Sanyal (1892: 131) said that it arrived in 1878 and added that first it had lived "for upwards of 45 years in a private menagerie". This latter collection was not identified, and there could be doubt as to the truth of the statement. Reynolds (1961a: 19) associated these '45 years' with a similar length of captive life of a rhinoceros in Barrackpore, which was recorded by Edward Blyth (see below, Barrackpore) but who did not live until 1878.

In the collection of the Indian Museum, Calcutta, Sclater (1891: 202, No. d) reported the presence of a skull and skeleton of a female *Rhinoceros unicornis* received in 1880 from the Zoological Gardens. However, it is no longer available in this collection or in its successor, the Zoological Survey of India (Groves and Chakraborty 1983).

1887 (?)

Noll (1889), following the *Annual Report* for 1887/1888, mentioned the arrival of one *Rhinoceros unicornis* and one *Rhinoceros sondaicus*. The specimen of the Javan rhinoceros is known, but the Indian animal is not mentioned by Sanyal (1892), and it is possible that there is some error in the transfer of the information.

*F* 1905 February – 1932 January †

Presented to the zoo. It is strange that the arrival of this animal was not mentioned in the *Annual Report* for 1904-1905, although there is a note on the diet of "the Indian Rhinoceros now living in the Gardens" (Sanyal 1905). Perhaps it arrived a little earlier? It was the mother of the stillborn calf from 1925.

*M* 1910 December – 1930 June †

Although Reynolds (1960a: 19) recorded its arrival in 1905, this cannot be substantiated by a study of the annual reports of this period. However, the superintendent B. Basu wrote in the report for 1909-1910: "The most important addition to the collection during the year was a couple of male Indian Rhinoceroses. They were purchased at Rs. 15,000 from Nepal and brought down to the Gardens in December, 1910. The larger of the two was mated with the female we had in our collection" (Basu 1910: 10).

*M* 1910 December – 1912 April 1

Imported together with the previous male from Nepal (Basu 1910: 10). Its death is not recorded in the annual reports (which were quite exhaustive in this respect), but on 31st March, 1912, there were only two Indian rhinos in the zoo. Therefore, I assume that this is the male which was included in a collection of animals given by the Prince of Wales to London Zoo in 1912. Basu (1912: 10) mentions that an important event during the year had been "the exhibition of a fine collection of animals presented to His Majesty by the Nepal Durbar. By the request of the Zoological Society of London, they were accommodated in the garden prior to their departure ... to London". This collection of animals, which included 'one young rhinoceros' left Calcutta on 1st April, 1912, on the *SS. Afghanistan*, accompanied by the superintendent B. Basu, and reached England on 20th May, 1912. To London.

*M* 1925 October 9 – 1925 October 9 †

Born to the male from 1910 and the female from 1905. The sex of this premature baby was mentioned in the annual report of the zoo for 1925-1926. The baby only survived for a few hours. The keeper said that mating of the parents had started on 17th March, 1924. At birth, it weighed 74 lbs, it was three feet two inches (65 cm) in length and one foot 11 inches (58.5 cm) in height (Ali 1927).

*M* 1932 March – 1970 August 30 †

Donated by the Countess of Willingdon. Died from cancer of the horn, caused by damage in 1968 after a fight with a female (Nandi and Deb 1972). It was said that the animal was 47 years old when it died.

*F* 1932 October – 1965 December 10 †

Donated by Lord Willingdon to mate with the 1932 male. Died of rabies.

*M* 1938 – 1939 June

Captured in Kaziranga in 1938. It was in transit to Washington, DC (arriving there on 7th July, 1939).

*F* 1961 June (?) – 1961 July 19

21-INDIA C

This animal was in transit to Tokyo (arriving there on 16th August, 1961). She delivered a calf while at the zoo (next entry), obviously wildbred.

*F* 1961 June 12 – 1982 August 14 †

'Sneha'

23-INDIA E

Born to female (21) in transit to Tokyo. The date of birth is recorded as 12th March by Lang *et al.* (1977), but 12th June is recorded by Das (1985). The animal was hand-reared, and was christened Sneha by Smt. Padmaja Naidu, then Governor of West Bengal.

*M* 1974 March 14 –

'Meghnad'

94-KAZ 19

From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-05 with arrival date 11th March, see Fig. 30.

*F* 1974 March 14 –

'Kadambini'

95-KAZ 20

From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-07.

*F* 1979 January 9 – 1986 March 10

'Gomoti'

97-CALC 1

Born to Meghnad (94) and Sneha (23), gestation 515 days, weight 55 kg at birth. It was christened 'Gomoti' by Shri Nripen Chakraborty, then chief minister of Tripura (Das 1985). To Cologne.

*M* 1984 June 4 –

'Debraj'

150-CALC 2

Born Meghnad (94) and Kadambini (95), gestation 456 days, weight 43 kg (Das 1985). Indian studbook (Kanpur Zoo 1993) No. NR-24, see Fig. 29.

## 2. Barrackpore Park

Barrackpore, 14 miles north of Calcutta, along the Hooghly River, was a military area. It became the country residence of the Governor Generals after Lord Wellesley in 1801 started to build a house there (see Losty 1990: 80 ff.). The grounds around the villa were referred to as Barrackpore Park and may have been one of the first 'zoos' in the Indian subcontinent, being in existence from 1800 to 1878 (Walker 1994).

1829

Jacquemont (1841: 169) visited Barrackpore in 1829, when Lord William Bentinck was Governor. He saw an adult single-horned rhinoceros, which was tied to a tree with a long chain and considered to be quite tame (also recorded by Loisel 1912, III: 21). There is no record as to what happened to this animal later.

*M* 1833 (?) – 1834

A specimen arrived in London in June 1834, where it was bought by Atkins for his zoo in Liverpool. It was about three years old on arrival. It is stated that it had lived for some time in Barrackpore prior to shipment (Rookmaaker 1993).

*M* 1856 – 1862 (?)

In his discussion of a female Indian rhinoceros skull, Blyth (1862: 155) said that the animal had been "one of a pair that lived about 45 years in captivity in Barrackpore Park. I have repeatedly seen the pair when alive, many years ago". Edward Blyth (1810-1873) was curator of the Museum of the Asiatic Society of Bengal in Calcutta from 1841 to 1863 (when

he returned to England). In a posthumously published paper, Blyth (1875: x) mentioned that when the Kingdom of Oudh was annexed to the rest of India in 1856, there was a sale of the Royal Menagerie and two rhinoceroses (of unidentified species) were sold to Calcutta. I think that this could explain the statement that the animal(s) had lived for 45 years in captivity, i.e., in Oudh from 1816 to 1856 and in Barrackpore from 1856 to 1861. However, in this scenario, it is not clear why Blyth would refer to seeing the animals "many years ago". The female is mentioned in the next entry. There is no evidence of what happened to the male. From Blyth's silence, the impression is given that it was still alive in 1862.

*F 1856 - ca. 1860 †*

This was one of a pair which may have been transferred from the collection of the King of Oudh in the present Lucknow (see previous entry). Apparently this female died before 1861, as Blyth (1862: 155) examined the skull and skeleton, preserved in the collection of the Calcutta Medical College (founded in 1835). The complete mounted skeleton of this animal was transferred in 1879 to the Indian Museum, Calcutta (W.L. Sclater 1891: 202, No. b). It is at present in the Zoological Survey of India at Calcutta, No. 19262 (Groves 1982: 255, Groves and Chakraborty 1983: 253).

*1864 March*

The animals (two males, one female) which arrived in Dublin and London in 1864 had been kept for some time in Barrackpore Park prior to shipment. In the expense account kept by Andrew Thompson, it shows that he went to Barrackpore on 17th and 21st March, and that he transported the animals from Barrackpore to the harbor on 1 April, 1864. It seems that the rhinoceroses had only been in the park for a short period.

*3. Collection of the Nabab of Chittepour*

*1828/1830*

Lamare Picquot (1835:61) mentions seeing a living rhinoceros several times ('plusieurs fois') in the possession of an Indian prince with whom he was acquainted, the Nabab of Chittepour, near Calcutta. Chittepour is the same as Chitpur, a locality within the present city of Calcutta. The collection of Raja Mallik (see

next entry) was in the same place, but the dates seem to show that these records refer to different animals and people, although possibly this 'Nabab of Chittepour' was a relative of Raja Mallik.

It should be noted that a three-year old Indian rhinoceros arriving in Boston, USA, in May 1830, was thought to have been kept by an Indian Rajah from August 1829 to January 1830. The exact date of Lamare Picquot's visit is not known (except that he set out for the Sunderbunds in November 1828), but it is just possible that he was referring to the same specimen.

*4. Collection of Raja Rajendra Mallik*

Raja Rajendra Mallik (1819-1897, also spelt Mullick) built his Marble Palace in the Chitpur area of Calcutta in the years 1835-1840. From 1854, in the gardens of this house, he usually kept a few animals, and this is sometimes said to have been the first menagerie in Calcutta.

*F 1867 (?)*

The Staatliches Museum für Naturkunde in Stuttgart, Germany, has the skull and mounted hide of an adult female *Rhinoceros unicornis* (No. 1218, Alte Katalog 1313). The old catalogue states that it was obtained from Gerrard "aus der Menagerie Babu ... [illegible word] Mullik in Calcutta, Indien" (F. Dieterlen, in litt. 24.2.1994). No other particulars about the animal are known.

*F 1871 †*

A female skull was presented by Rajah R. Mullick to the Indian Museum, Calcutta in 1871 after the animal had died in captivity.



Fig. 29. Calcutta, Indian rhinoceros, November 1987.



Fig. 30. Indian rhinoceros at Calcutta, February 1993, with the zoo's library on the right.

This skull is now in the Zoological Survey of India, No. 19240 (W.L. Sclater 1891: 202, No.1; Groves 1982: 255, Groves and Chakraborty 1983: 254). No other details are known.

#### 5. Collection of the Maharajah of Burdwan

Burdwan is another spelling of Bardhaman, formerly a place near Calcutta, but now within its limits. The Maharajahs of Bardhaman were great patrons of the arts during the 19th and early 20th centuries. The exact place where they kept a collection of animals has not been discovered. In 1879, Calcutta Zoo in Alipore opened Burdwan House, dedicated to Maharajah Mahtab Chand Bahadur of Burdwan, a patron of the zoo.

1880 (?)

Buckland (1882) stated the presence, ca. 1880 (?), of a pair in the collection of the Maharajah of Burdwan. There are no further particulars.

#### 6. Trading post at Hugli

F 1738 – 1740 November 30  
'Clara'

The Dutch rhinoceros which toured through Europe from 1741 to 1759 (see Europe, Travelling Menageries) was caught in Assam in 1738 and kept as a pet at the trading post of the Dutch East India Company at Hougly or Hugli. It left Calcutta in November 1740.

#### 7. Calcutta as a harbor of trade

Calcutta was the main trading center through which many of the rhinoceroses exported to Europe and the USA passed during the 19th and early 20th centuries. Many animals came

from 'Calcutta', while in fact they were caught in Assam or one of the other North-Eastern states of India, or in Nepal or Burma. It is often not clear where they were kept while in Calcutta. A short list of animals which are stated to have stayed in, or passed through, Calcutta in the 19th century may help to identify individual animals in some difficult cases.

1828/1830: A rhinoceros was present in the collection of the Nabab of Chitpur, in Calcutta (Lamare Picquot 1835).

1829: A rhinoceros was present in Barrackpore Park (Jacquemont 1841).

1830: A three-month old animal caught in Assam arrived in Boston in May 1830.

1830: A three-year old male rhinoceros was imported into the USA in October 1830.

1834: A ten-year old rhinoceros, born in Kathmandu (Nepal), went to Calcutta (Hodgson 1834).

1834: A female caught in Assam arrived in Philadelphia in December.

1834: Liverpool. A rhinoceros had been kept for some time in Barrackpore Park. It was three years old in 1834.

1856: A pair arrived in Barrackpore Park (Blyth 1862). One female had lived for about 45 years in captivity, probably in the menagerie of the King of Oudh, and died before 1861.

1864: Two specimens imported to London Zoo (female) and Dublin Zoo (male) had been kept in a menagerie in Barrackpore.

1867: Two rhinos were shipped to England by William Jamrach, but both died on the way (Buckland 1882).

1871: A female died in 1871 in the collection of Raja Rajendra Mallik in Calcutta.

1871: A male rhinoceros was imported by Mr. Scovill into the USA, via Liverpool. It was owned by Pogey O'Brien.

1874: Jamrach shipped two rhinos to Europe (Jamrach 1875). One died en route, the other was sold to Berlin.

1875: A rhinoceros from Bhutan was shipped by Jamrach to London, where it died in the stables of Mr. Rice (Sclater 1875).

1878: Female arrived in Alipore Zoo, after 45 years in a private menagerie (Sanyal 1892).

1880/1882: A pair was present in the collection of the Maharajah of Bardhaman, near Calcutta.

1887: Arrival of a specimen in Alipore Zoo, but record questionable.

# **Chandigarh, Punjab, India**

*M.C. Choudhery Zoological Park, Chattbir*

*M* 1977 December 24 –  
'Balaram' 215-KAZ 30  
From Gauhati. Indian studbook (Kanpur Zoo 1993) No. NR-14.

*F* 1978 July 29 – 1986 May 25 †  
'Shakuntala' 216-KAZ 31  
From Gauhati. Indian studbook (Kanpur Zoo 1993) No. NR-15.

*M* 1986 May 9 –  
Born to Balaram (215) and Shakuntala (216).  
Indian studbook (Kanpur Zoo 1993) No. NR-27.

# **Chester, UK**

*North of England Zoological Society*

*M* 1987 December 3 –  
'Yodha' 132-WHIP 5  
From Whipsnade.

# **Chiangmai, Thailand**

*Zoological Gardens*

*M* 1986 April 22 – 1986 July 24 †  
Imported from Nepal together with the following female. It was eight months old on arrival. Died of kidney failure, but the date is not definite.

*F* 1986 April 22 –  
Caught in the Sanraha area of the Royal Chitwan National Park, Nepal. It was eight years old on arrival (Chiangmai Zoo, in litt. December 1993).

*M* 1994 December 12 –  
'Nadir' 109-STUTT 5  
From Singapore.

# **Chicago, IL, USA**

*Chicago Zoological Park, Brookfield*

*F* 1948 May 16 – 1948 May 16 † 4-KAZ 3  
This calf was born and died while the mother (02) was in transit from India to Chicago.

*M* 1948 June 24 – 1970 November 13 †  
'Kashi-Ram' 3-KAZ 2  
Caught in Kaziranga. This male and the following female were collected by Ralph Graham and presented to the zoo by the George B. Dryden expedition.

*F* 1948 June 24 – 1968 May 6 †  
'Kamala-Rani' 2-KAZ 1  
Caught in Kaziranga. Result of the George B. Dryden expedition.

# **Cincinnati, OH, USA**

*Cincinnati Zoo*

*F* 1877 April 14 – 1878  
Deposited by the John Robinson Circus. Robinson lent the animal to the zoo for one year as it could not be transported on a wagon. It returned to the circus in 1878 when they started travelling by train (Ehrlinger 1993: 19).

*F* 1923 April 9 – 1929 May †  
'Ruby'  
Imported from Nepal through Hagenbeck, and cost \$10,000 (Reynolds 1961a: 27, Rookmaaker and Reynolds 1985: 150, fig. 9). There is a photograph in Ehrlinger (1993: 58).

*M* 1989 October 24 –  
'Jimmy' 147-PHIL 3  
From Philadelphia.

*F* 1994 August 22 –  
'Nikki' 189-TORO 1  
From Toronto.

# **Cologne, Germany**

*Zoologischer Garten Köln*

*F* 1872 April 26 – 1900 October 25 †  
'Schöne Marie'  
Imported by the dealer Jamrach, probably from

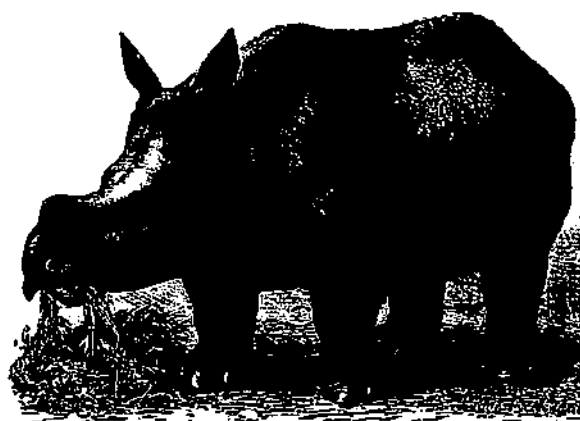


Fig. 31. Cologne's female rhinoceros 1872-1900, drawn by Ludwig Beckmann in 1873.

Assam. It was two to three years old on arrival. It lost its horn in 1881 and in 1891, but each time the horn grew again (Wunderlich 1892). It died after a long illness. Its hide and skeleton were mounted by H. Sander and exhibited at the natural history museum in the Stapelhaus of Cologne (destroyed during World War II). Details about its history (with references to local journals and newspapers) were given by Kohle (1981: 104-105). He also included an original drawing made in 1873 by Ludwig Beckmann (1822-1902), first published in the *Illustrierte Zeitung* of January 1873 (see Hässlin and Nogge 1985: 90, Kourist 1970: 150, fig. 9; see Fig. 31).

**M 1978 November 2 – 1987 September 8 †**  
 'Ypsilon' or 'Yamatari' 84-BASEL 15  
 From Gelsenkirchen. Euthanized in 1987 as it was suffering from a tumor in a nostril.

**F 1986 March 10 –**  
 'Gomati' 97-CALC 1  
 From Calcutta, bought for DM 150,000. A photograph taken at the time of its arrival can be seen in Nogge (1987: 10). It also appears together with 'Bruno' (123) on the front cover of *Zeitschrift des Kölner Zoo*, 31 (4), 1988.

**M 1987 December 9 –**  
 'Bruno' 123-STUTT 7  
 From Stuttgart.

## Delhi, India

### Zoological Gardens

Bhatia and Desai (1971, 1975) discussed the husbandry and enclosures of the rhinoceroses in Delhi.

**M 1959 December 6 – (?)**

'Mohan'

From Gauhati. Present in 1963 (Rookmaaker and Reynolds 1985: 150 after C. Jarvis). The dates of death or transfer are not recorded.

**M 1965 December 1 – 1988 July 6 †**

'Mohan'

33-KAZ 9

From Gauhati. It was 3.5 years old on arrival. It is illustrated in Bhatia and Desai (1975, fig. 1).

**F 1968 March 28 – 1986 June 2 †**

'Rengi'

43-KAZ 10

Caught in Assam. It was six years old on arrival. It is illustrated in Bhatia and Desai (1975, figs. 1, 2).

**F 1971 January 27 – 1973 February 6**

'Roopa'

51-DELH 1

Born to Mohan (33) and Rengi (43). Gestation period 484 days. It is illustrated in Bhatia and Desai (1975, fig. 2). Studbook 59-KAZ 12, female 'Rukmini' probably refers to the same specimen. To Whipsnade.

**M 1983 February 3 –**

'Dabbu' (= 'Agni')

151-ASSAM 18

From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-23, with arrival date 3rd March.

**F 1990 December 12 –**

'Mohini' = 'Ruby'

194-INDIA N

From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-37, with arrival date 20th December.

**M 1992 December 27 –**

202-DELH 2

Born to Dabbu (151) and Mohini (194). The date was recorded in Basel Zoo (1995) following a newspaper report and in *Zoos' Print*, 8 (2): 39, 1993.



**Dhaka, Bangladesh***Private Collection*

ca. 1807

A Mr. Matthew Day of Dacca had a rhinoceros which he "kept in a park, into which it was not very safe to venture" (Williamson 1807: 45).

**Dresden, Germany***Zoologischer Garten*

M 1873 February 4 – 1892 †  
'Begum'

This animal was 1.5 years old on arrival and cost DM 12,000 (Knauer 1914: 23). It was illustrated, in the company of two dogs, by Heinrich Leutemann (1824-1905) in the *Gartenlaube* of 1875 (Kourist 1970: 149, fig. 10). Knauer (1914: 195) published a photograph taken in 1889. Exact date of death is not recorded.

**Dublin, Ireland***Dublin Zoo*

M 1834 July – 1834 August

From Liverpool and returned there. This rhinoceros, owned by Thomas Atkins, was hired for one month for a short exhibition. The zoo paid £140, plus a young llama. A poor illustration was included in the *Dublin Penny Journal* of 1835 (Anon. 1835, see Rookmaaker 1993, fig. 1).

M 1864 August 3 – 1865 April 6 †

Purchased through Sir C. Trevelyan and Captain Lees for £165. It was first kept in Barrackpore Park, Calcutta and was then transported to Great Britain together with a consignment of animals for London Zoo. Headkeeper Andrew Thompson of London Zoo brought it to Plymouth, arriving in July 1864 (two other rhinos transported on the same ship arrived in London Zoo on 25th July, 1864). An account of the expenses incurred for the transport of the animal from Calcutta to London is present in the Archives of the Dublin Zoo. The total was £103 17s 10d, which was paid to the London Zoological Society on 1st

October 1864. After its death, the body of the rhinoceros was purchased by Trinity College, Dublin, where a post-mortem was performed. Its death was said to be due to fermentation of Indian corn in the stomach causing rectal prolapse (T. Murphy, History of Dublin Zoo, unpublished).

**Dvur Kralove, Czech Republic***Zoological Gardens*

M 1980 August 12 – 1992 June 14  
'Dvityia' 86-STUTT 3  
From Stuttgart. To Singapore.

F 1981 July 22 –  
'Numa' 93-STUTT 4  
From Stuttgart.

F 1986 January 14 – 1986 February 27 †  
'Nelly' 167-DVKR 1  
Born to Dvitya (86) and Numa (93). Bottle-reared, but did not survive.

M 1987 November 4 – 1989 November 9  
'Nim' 141-DVKR 2  
Born to Dvitya (86) and Numa (93). Third zoo-generation. To Liberec.

M 1990 November 16 –  
'Ropen' 145-WHIP 6  
From Whipsnade.

**Edinburgh, UK***Unknown collection*

M 1835

The so-called 'Liverpool Rhinoceros' belonging to Thomas Atkins and sometimes exhibited at a zoo at Liverpool was shown at an unknown locality in Edinburgh around 1835 or 1836 (Jardine 1843: 171-173, plates 8 and 9).

**Europe***Travelling menageries*

F 1741 July 22 – 1758 April 14 †  
'Clara', the Dutch Rhinoceros  
In 1741 an Indian rhinoceros arrived in the

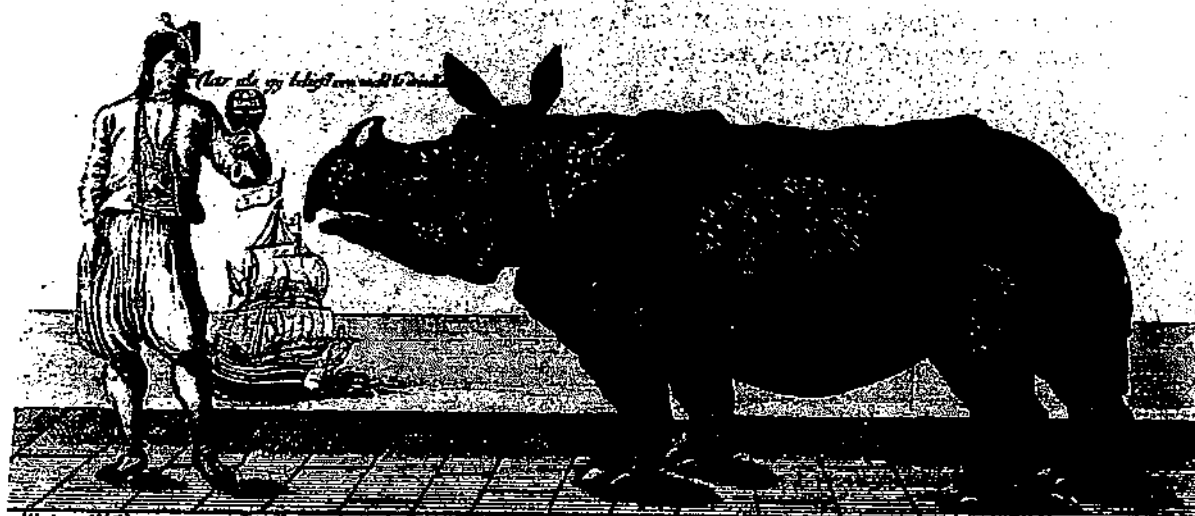


Fig. 32. 'Clara', the Dutch rhinoceros, being offered a glass of wine, on a poster distributed during the tour, around 1748.

Netherlands. The animal was taken to many cities around Europe between 1746 and 1758, thereby introducing the species to a large section of the then interested population. The first attempts to piece together the history and itinerary of this 'Dutch rhinoceros' (sometimes called 'Clara') were made, independently, by Clarke (1974) and Rookmaaker (1973b). Following this modest start, the iconographic research by Tim Clarke has added many details, as can be seen in his 1986 book. At the same time, additional facts were published by Heikamp (1980), describing material in Martin Sperlich's remarkable rhinoceros print collection in Berlin, and by Hubert Emmerig (1978) regarding coins and medals. An exposition at the Nature Museum in Rotterdam, commemorating the 250th year after Clara's arrival in the Netherlands, brought together some of the available material, with a catalogue (Verheij, 1992). The evidence is summarized here (see Figs. 32, 33, 70).

#### 1738-1741

India  
A female Indian rhinoceros was killed (with arrows?) in Assam, India in 1738. The baby rhinoceros was rescued and donated to Jan Albert Sichterman, director of the Dutch East India Company's (VOC) trading post at Houghly near the present Calcutta. The young rhinoceros was tame enough to be allowed to roam among the house guests. In 1740 it was bought by or given to a Dutch sea captain, Douwe Mout van der Meer (born 1705). They left Bengal on board the *Knappenhof* on 30th November, 1740, stopping in Cape Town in March, 1741, and reaching Rotterdam on 22nd July, 1741 (Verheij 1992: 11-12). A short transit stop in London between May and July, 1741, would not have been impossible (a vague reference in Parsons 1743).

#### 1741-1742

Amsterdam and Leiden  
In August 1741, Matthys Wylacker showed the rhinoceros in Nieuwendam near Amsterdam (advertisements in the *Amsterdamsche Cou-*

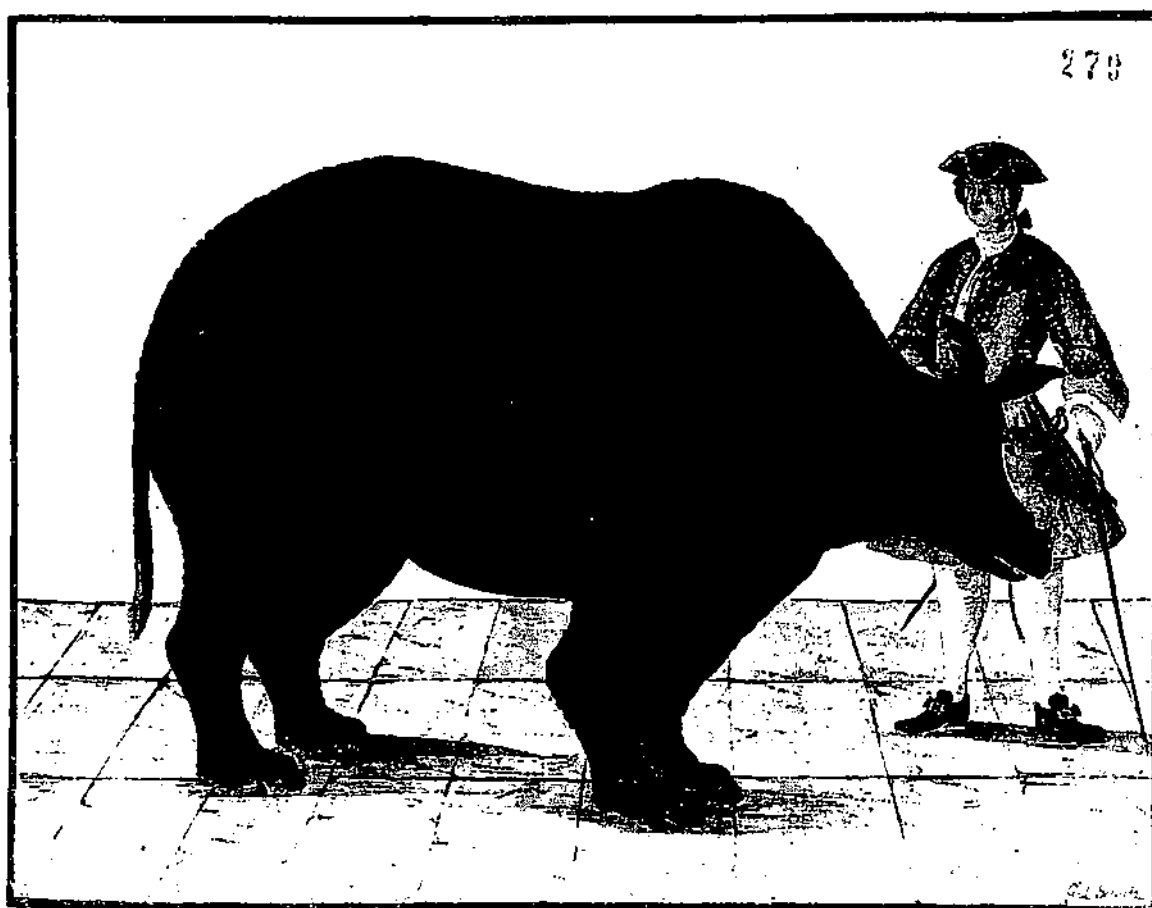


Fig. 33. The Dutch rhinoceros at Hannover, watercolour by J.L. Scheitz.

rant of 22nd, 24th and 26th August, 1741 and the *Leydsche Courant* of 21st August, 1741). In September, 1741, it was seen by Jacob Bicker Raye in Amsterdam (Raye 1935: 91). W. van Royen drew it on 25th September, 1741, while it was still in Amsterdam, but the whereabouts of this first depiction of the Dutch rhinoceros were lost after 1910 (Rookmaaker 1978a). Early in 1742, drawings were made by Jan Wandelaar (1690-1759) in Leiden or Amsterdam, which were used as a background in two plates in the anatomical atlas of B.S. Albinus (1747, pls. 4, 5; reproduced by Clarke 1986: 50).

1744

Hamburg

Two prints in the Staatsarchiv, Hamburg show a rhinoceros taken from Dürer's woodcut, and state that the animal was seen in Hamburg in 1744 (Heikamp 1980: 310-311, figs. 9, 10).

1746

Hanover

A watercolor was made by the Hanover artist

J.L. Scheitz in the 'Ballhof' in the summer of 1746 (Stadtarchiv Hanover, reproduced in Faust 1978 and Clarke 1986: 51; see Fig. 33).

1746 April

Berlin

Exhibited on the Spittelmarkt. King Friedrich II took time to visit it and paid 12 ducats on 26th April, 1746, to which he added another six ducats the next day (Klôs 1969: 17).

1746 July

Frankfurt a/d Oder

Seen on 16th July, 1746, by Johann Jacob Korn (Gleiss 1967: 42, following *Schlesischer Zeitung*). Bergen (1746) delivered an *Oratio de Rhinocerote* on 16th October, 1746, in this town.

1746

Glogau

Mentzel (1787: 237) stated that the animal was seen in this city in 1746.

- 1746 September** **Breslau**  
[= Wroclaw, Poland]  
Arrived on 3rd September, 1746 (Gleiss 1967: 42, following *Schlesischer Zeitung*). It may have left on 2nd October, 1746 (Clarke 1986: 51).
- 1746 October** **Vienna**  
A poster signed by Elias Baeck (1649-1747) reported the arrival in Vienna on 30th October, 1746, at 11 am (reproduced in Faust, 1978, Heikamp 1980: 313, Clarke 1986: 48). On Saturday 5th November, 1746, the rhinoceros was visited by the Empress Maria Theresa (1717-1780) and other royal guests (Emmerig, 1978). There is a miniature showing her grandchild Karl Joseph (1745-1761) reading about a rhinoceros (Clarke 1986: 51, pl. V).
- 1746/1747** **Munich**  
This town was mentioned on one of the posters sold during Clara's tour, but no independent confirmation has been found (Clarke 1986: 51).
- 1747 March** **Regensburg**  
Barth (1747) published a letter to a good friend, dated 6th April, 1747, stating that he had observed the rhinoceros a few weeks earlier.
- 1747 April** **Freiberg or Freyberg, near Dresden**  
Exhibited at the Wiesemann Inn of the Golden Star (Clarke 1986: 51).
- 1747 April** **Dresden**  
Arrived on 5th or 7th April, 1747, and was shown at the Rothe Hirsch near the Pirna Gate (Emmerig 1978, according to local newspapers). It was taken to the royal court to be observed by the Elector of Saxony, August II, on 19th April 1747, after which it left the town (Petzsch 1935, Clarke 1986: 52). Hufnagel (1873) reproduced the text for one of the posters, published in Dresden.
- 1747 April** **Leipzig**  
Exhibited during the Ostermesse, probably from 23rd April, 1747 (Petzsch 1935, Emmerig 1978). It may still have been there in May 1747, the date mentioned on a poster (Faust 1978).
- 1747 June** **Kassel**  
Johann Ernst Grassmeder, a local gardener, mentioned that the rhinoceros was in Kassel from 25th June to 18th July, 1747 (Clarke 1986: 52).
- 1747 September** **Frankfurt am Main**  
Arrived in the week before 12th September, 1747. It was shown in the 'Gast-Hauss zum Pfau' outside the Friedburger Thor until 30th September, 1747 (Hufnagel 1873, Emmerig 1978: 21).
- 1747 November** **Mannheim**  
Exhibited at the 'Gasthof zum Pfau' owned by Georg Adam End (Emmerig 1978). On 20th November, 1747, it was seen by the Elector Palatine Carl Theodor with his sons. This visit was commemorated in a verse printed on some of the large-sized posters sold during the tour (Emmerig 1978, Clarke 1986: 52, pl. 28b, Rookmaaker 1973b, fig. 7). It would not appear to be true that the poem was made for a visit to Nuremberg (Rookmaaker 1973b: 50).
- 1748 February** **Bern**  
Seen during the month of February 1748 (Emmerig 1978: 21), but may have arrived on 27th January (Clarke 1986: 52).
- 1748 March** **Zurich**  
Exhibited during the first half of March 1748 (Emmerig 1978: 21). David Redinger sold two broadsheets with the rhinoceros, one of which also showed part of the wagon used to transport the animal (Clarke 1986: 49, fig. 28c).
- 1748 March** **Basel**  
Seen after 18th March 1748 (Emmerig 1978: 21).
- 1748 March** **Schaffhausen**  
Seen from the end of March 1748 (Emmerig 1978: 21).
- 1748 April** **Strasbourg**  
Exhibition probably in this month (Clarke 1986: 52). There are three medals by Jean Daniel Kamm with German or French text (Emmerig 1978: 25).
- 1748 May** **Stuttgart**  
The text on a medal states that the animal was weighed in Stuttgart on 6th May, 1748, and found to be 5000 pounds (Petzsch 1935,

Rookmaaker 1973b: 50). A silver medal was made while in Stuttgart by Veit Schrempf (Emmerig 1978: 24).

1748 May

Augsburg

Arrived on 18th May and left on 16th June, 1748 (Emmerig 1978: 21 after *Augsburger Chronik*). On 16th June, 1748, six drawings of the rhinoceros were made by Johann Elias Ridinger (1698-1767), three of which are known today (Clarke 1984, figs. 31-33, 1986, pl. VI and figs. 31, 32). Ridinger later showed the rhinoceros in several engravings which had a wide distribution (Rookmaaker 1973b, fig. 8; Clarke 1986, figs. 33-34).

1748 July

Nuremberg

Arrived on 22nd July and left on 20th August, 1748 (Emmerig 1978: 21 after *Nürnberger Chronik*). Several medals with texts in German, French and Italian were made by Peter Paul Werner (Emmerig 1978: 23).

1748 October

Würzburg

Douwe Mout asked permission of the town council to show the rhinoceros in Würzburg (Brod 1958). It was seen and drawn on 3rd October, 1748, by Anton Clemens Lünenschloss (1768-1763), who for the first time stated that the animal was called 'Jungfer Clara' (Brod 1958, Clarke 1986, fig. 36).

1748

Ansbach

A medal was struck by Johann Gözinger in Ansbach in 1748 (Emmerig 1978: 23), but the dates of the visit have not been recorded.

1748

Leiden

The Dutch anatomist Petrus Camper (1722-1789) made three drawings in white chalk on blue paper and a clay model of this rhinoceros (the drawings are reproduced by Rookmaaker 1978a and Verheij 1992: 31-33, the model by Rookmaaker 1973b, fig. 9 and Verheij 1992, fig. 14). Camper (1782: 139, 147) stated twice in no uncertain terms that he saw the animal in Leiden in the year 1748. He added that he also made an oil painting, but this has not yet been found. The dates of the visit to Leiden in 1748 are not known.

1748 December

Reims

Shown in Reims by a man called Louis Olivier, who had hired the animal for the occasion (Gandilhon 1980: 128). It had come from

Stuttgart. It left the town on 30th December, 1748 (Loisel 1912, II: 279).

1749 January

Versailles and Paris

In Versailles, King Louis XV wanted to buy the rhinoceros for his menagerie but reconsidered when he heard that he would have to pay 100,000 écus d'or. The animal was in Versailles in January 1749 and was exhibited at various localities in Paris from 27th January until the end of April 1749. The people of Paris celebrated the presence of this rhinoceros in their fashions, plays and works of art (Clarke 1986: 58, Heikamp 1980: 313-314, Loisel 1912, II: 279). It was drawn and painted by Jean-Baptiste Oudry (1686-1755) while in Paris (Clarke 1984, 1986: 64-68). One of these drawings was engraved to illustrate the natural history of the rhinoceros in Buffon (1764, vol. 11, pl. 7), which gave it a very wide distribution.

1749

France

Heikamp (1980: 314) quoted from the *Gazette d'Amsterdam* (25th February 1749) regarding the intended journey through France, naming cities such as Dijon, Genève, Lyons, Avignon, Aix and Marseilles. The details of the places visited after leaving Paris have not been discovered, except for the visits to Lyons and Marseilles.

1749 May

Lyons

It was (falsely) rumored that the rhinoceros killed some people and died of love pains while in Lyons on 30th May, 1749 (Loisel 1912, II: 279).

1749 November

Marseilles

A German newspaper reported that the rhinoceros upset a barge when it was transferred to a larger vessel (Clarke 1986: 59 after *Auszug der Neuesten Weltgeschichte*, No. 97, 1749).

1749 November

Naples

From Marseilles, the rhinoceros was taken by ship to Naples (Heikamp 1980: 314). There is a painting by the Neapolitan school made around this date, showing the rhinoceros in a booth near Castelnuova, although the likeness is copied from the posters sold during the tour (Clarke 1986: 59, pl. VII).

1750 March

Rome

During the first half of the Holy Year, the

rhinoceros was in Rome. It probably arrived on 14th March, 1750 (Heikamp 1980: 312). The exact length of stay is not recorded. A rumored visit to Florence seems not to have materialized (Clarke 1986: 60).

1750 August Rimini  
Seen in Rimini by Johannes Antonius Battarra, who included a long description of the animal in Bonannius (1773: 16), which starts: "Anno Jubilaei MDCCL Rhinoceros visus est in Italia, & Kal. Augusti fuit Ariminum transvectus, eumque commode observare potui" [A rhinoceros was seen in Italy in 1750, and was brought to Rimini in Augustus, where I could see it easily].

1750 August Bologna  
Exhibited from 24th August to 7th September, 1750, at a local inn (Clarke 1986: 60).

1750 Milan  
The name of the city appears on a poster, but particulars have not been found (Clarke 1986: 60).

1751 January Verona  
Recorded in January 1751. There is a drawing of the rhinoceros by Francesco Lorenzi (Heikamp 1980, fig. 15, Clarke 1986: 61, fig. 37).

1751 Venice  
The dates of the visit have not been discovered, but it would have been at the beginning of the year. While in Venice, it was painted by Pietro Longhi (1702-1785). There are two versions of this famous painting, at Ca'Rezzonico, Venice, and the National Gallery, London (Rookmaaker 1973b, fig. 11, Clarke 1986, pl. VIII; see Fig. 70). Moreover, a drawing by Alessandro Longhi and a painting by an unknown artist date from the visit to Venice (Clarke 1986, fig. 38 and pl. IX).

1751 May Vienna  
Arrived on 29th May, 1751, and stayed for only eight days (Emmerig 1978: 22 after *Wienerische Diarium*). The newspaper stated that it was intended to take the animal to Prague and Frankfurt am Main, but these visits have not been confirmed (Clarke 1986: 63).

1751 December London  
Noticed in December 1751 (Clarke 1986: 63 after the *Gentleman's Magazine*, December 1751). In 1752, George Edwards drew a female rhinoceros and later published an engraving (Edwards 1758, fig. 221, see Rookmaaker 1973b, fig. 12).

1754 Danzig [Gdansk]  
Seen during this year, but no dates are on record (Klein 1760: 32). It was engraved by Matthäus Deisch in three different positions on one print (Heikamp 1980, fig. 16, Clarke 1986, fig. 39). The print legend mentions that the rhinoceros had been shown in Poland and Prussen.

1754 November Warsaw  
On 6th November, 1754, the rhinoceros was taken to the court to be seen by the sons of August III (Heikamp 1980: 315 according to archive records).

1755 June Copenhagen  
On 12th June, 1755, Douwe Mout applied for permission to exhibit the rhinoceros. While in Copenhagen, it was drawn by Johanna Fosie (1726-1764) from life (Jorgensen 1986 with illustration).

1756 London  
One of the usual posters available for sale during Clara's tour, but the only one with an English text, said that the animal was in London, "to be seen at the Horse and Groom in Lambeth Marsh", when it was 18 years of age. The presumed age of the animal is the only way to date the poster (Rookmaaker 1978b: 31).

1756 Haarlem  
A rhinoceros was drawn by Cornelis van Noorde (1731-1795) at a fair in Haarlem (Sliggers 1982, fig. 95, Clarke 1986, fig. 40, Verheij 1992, fig. 19).

1758 The Netherlands  
Johan Le Franq van Berkhey (1729-1812), professor of natural history at Leiden, had a drawing of the rhinoceros which he had made from life in 1758 (Berkhey 1784: 48). The whereabouts of the drawing are unknown.

1758 April 14

London

There is a large poster signed by Joh. Mich. Eben (1716-1761) with text in both German and French. The last sentence is a new addition: "Er ist alt geworden 21 Jar, in London crepirt 1758 den 14 Aprill" [It became 21 years old, and died in London on 14th April 1758]. There is no other confirmation of this event. Thus ended the life of Clara. It is not known whether her remains were preserved.

*M* 1810 - 1839 †

*Tourniaire's Rhinoceros*

This animal, called 'Tourniaire's Rhinoceros' here, after its principal owner, was taken around many European countries between its arrival in London in 1810 and its death in Germany in 1839. Many illustrations of it are mentioned in the course of the itinerary. Two plates cannot be exactly dated or localized. Schinz (1824) published a plate of an Indian rhinoceros drawn from life in Europe, and is probably this specimen (illustrated in Rookmaaker and Reynolds 1985, fig. 1; see Fig. 34). Kourist (1974: 544, fig. 2) documented and illustrated an undated aquarel by Christian Leopold Müller (b. 1810).

1810

London

The exact date of arrival and the provenance are unknown. However, it was present in 1810 at the Exeter 'Change in London. It was shown in Portsmouth in July 1811 (M. Sorrell, in litt. October 1996). Three drawings were made while the animal was in London. It is visible among a group of animals on a poster of the 'Royal Menagerie, Exeter Change, Strand, London. Drawn & engraved by S. Howitt. Published by L. Polito, Propietor, 1813' (illustrat-

ed in Rookmaaker 1983a, fig. 12). A drawing made in 1814 by Thomas Landseer (1795-1880) was published by Griffith (1827, III, plate opposite p. 425). Another rhinoceros plate by Landseer (Kourist 1970: 145, fig. 5) was published by Barrow (1832), who added that "the individual we are describing was brought into England in 1815, and afterwards removed to Paris, where it attained upwards of ten feet in length, and five feet in height". Barrow published a second plate of a rhinoceros attacking a tiger. In 1814 the rhinoceros was sold to the Royal Menagerie in Stuttgart, but never arrived there due to the sudden death of the King (Schreber 1835: 292). King Friedrich-Wilhelm of Wurtemberg maintained two menageries in the vicinity of Stuttgart. The King died in 1816, but his son lacked his interest for the parks. The last animals were sold in 1819 (Loisel 1912, III: 43).

1814

Amsterdam

Exhibited in Amsterdam at the show of A. Alpy (Keyser 1976: 146).

1814-1816

Paris

Seen in Paris in 1814 (Chenu and Desmarest 1858: 3), but the locality is not defined. Geoffroy and Cuvier (1820) published two lithographs of this specimen. They said that it was a young male, first imported into England, and seen in Paris in 1815 (Rookmaaker 1973a: 58, fig. 13). The English artist James Forbes (1749-1819) included the rhinoceros in a sepia drawing dated 1816 (Kourist 1970: 145, fig. 4).

1816

Frankfurt a/d Oder

Seen during a fair in Frankfurt a/d Oder (Hufnagel 1873).

1816-1817

Nuremberg

A drawing, made in 1816 by A. Gabler, was published by Wolf (1818, pl. XIX).

1817

Munich

Vogel (1817) analyzed the urine of a male rhinoceros exhibited in Munich in February and March 1817. It was said to be seven years old.

1818

Vienna

Shown in this year (Fitzinger 1860: 51).



Fig. 34. Tourniaire's rhinoceros, travelling around Europe 1810-1839, on a plate published by Heinrich Schinz in 1824.

- 1819 Leipzig  
Exhibited during 'Ostermesse' or 'Jubilatemesse' from 22nd to 30th April 1819 (Rookmaaker 1973a: 59).
- 1819 Paris  
Exhibited in Paris in 1819 (Chenu and Desmarest 1858: 3).
- 1820 Hamburg  
C. Suhr made a drawing 'Nach dem Leben auf Stein' of a rhinoceros in Hamburg in 1820. It was a male, nine years old (Heikamp 1980: 319, fig. 20). The age does not quite fit in with the Tourniaire rhinoceros, but as the menagerie owners did not always give the true figures, this could have been an error.
- 1824 Amsterdam  
Exhibited by Madame Tourniaire (Keyser 1976: 146).
- 1833 Paris  
Shown in this year (Schreber 1835: 299, Fitzinger 1860: 51).
- 1834 Berlin  
Shown in this year (Fitzinger 1860: 51).
- 1834 Munich  
Shown during the Summer Fair (Schreber 1835: 299, Fitzinger 1860: 51).
- 1835 Dresden  
Shown in this year (Fitzinger 1860: 51).
- 1836 Vienna  
Exhibited by Tourniaire for a few weeks (Giese 1962: 137).
- 1838 Moscow  
Shown in this year (Fitzinger 1860: 51).
- 1838 St. Petersburg  
Shown in this year (Fitzinger 1860: 51).
- 1839 Königsberg  
Died in the cold winter of 1839 in Königsberg (=Kaliningrad, Russia). Its hide was stuffed and preserved at the Royal Museum of Königsberg (Fitzinger 1860: 52). There is no record what happened to the specimen afterwards.

#### F 1840 - 1843 †

##### Schreyer's Rhinoceros

Heinrich Schreyer from Vienna was the owner of a travelling menagerie. He bought the rhinoceros in London in 1840, travelled throughout the continent and was in Stettin [Szczecin, Poland] in April 1843, where the animal died (Fitzinger 1860: 52). It was a female Indian rhinoceros. The hide and skeleton were sold (for Ngl. 600) in 1845 to the Natural History Museum in Vienna, where the remains are still preserved today (No. NMW 8199/St.316; Rookmaaker and Reynolds 1985: 131; see Fig. 35).

#### M 1841 - 1848 †

##### Huguet's Rhinoceros

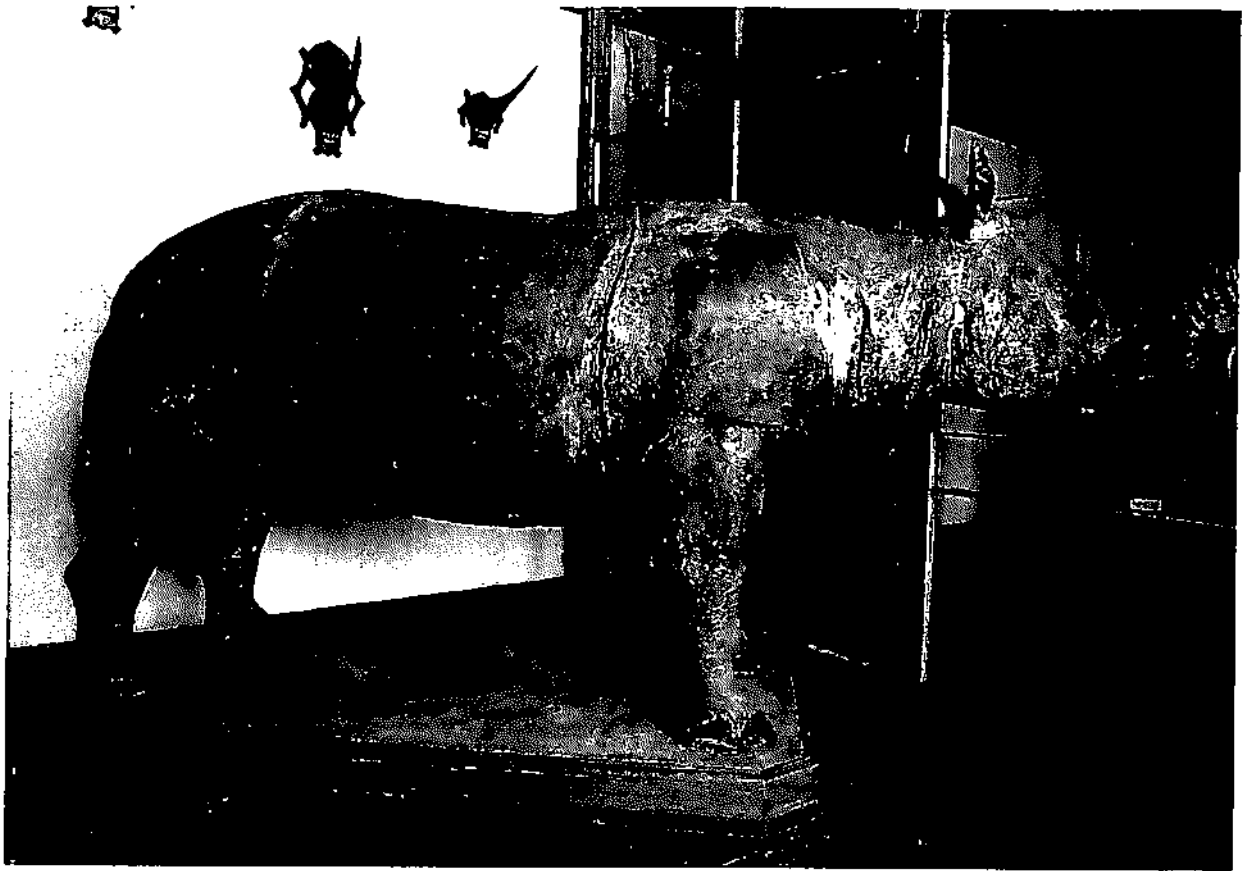
In January 1848, G. von Martens (1850: 99, 107-110) visited a travelling show owned by Huguet in Stuttgart, Germany. Von Martens talked to the keeper of the rhinoceros, a Frenchman called Carrière, who told him the alleged story of the animal (pp. 107-108). Carrière said that he had gone to Sumatra and entered the service of the Governor General. This man died 18 months later and his menagerie was sold. Carrière then bought a rhinoceros, which had been captured 31 years previously in a swamp. On the way to Europe, he removed the animal's horn. On arrival, the animal was bought by the Jardin des Plantes in Paris for 140,000 francs, but Carrière was allowed to continue showing it for one month. They went to Brussels and then presumably to Stuttgart. The animal was named 'Riese Jotete'. See Fig. 36.

Von Martens (1850: 107) called it a *Rhinoceros javanus* [= *sondaicus*]. This would be the obvious identification, considering the provenance and its single horn. However, the few available illustrations of the animal seem to contradict this.

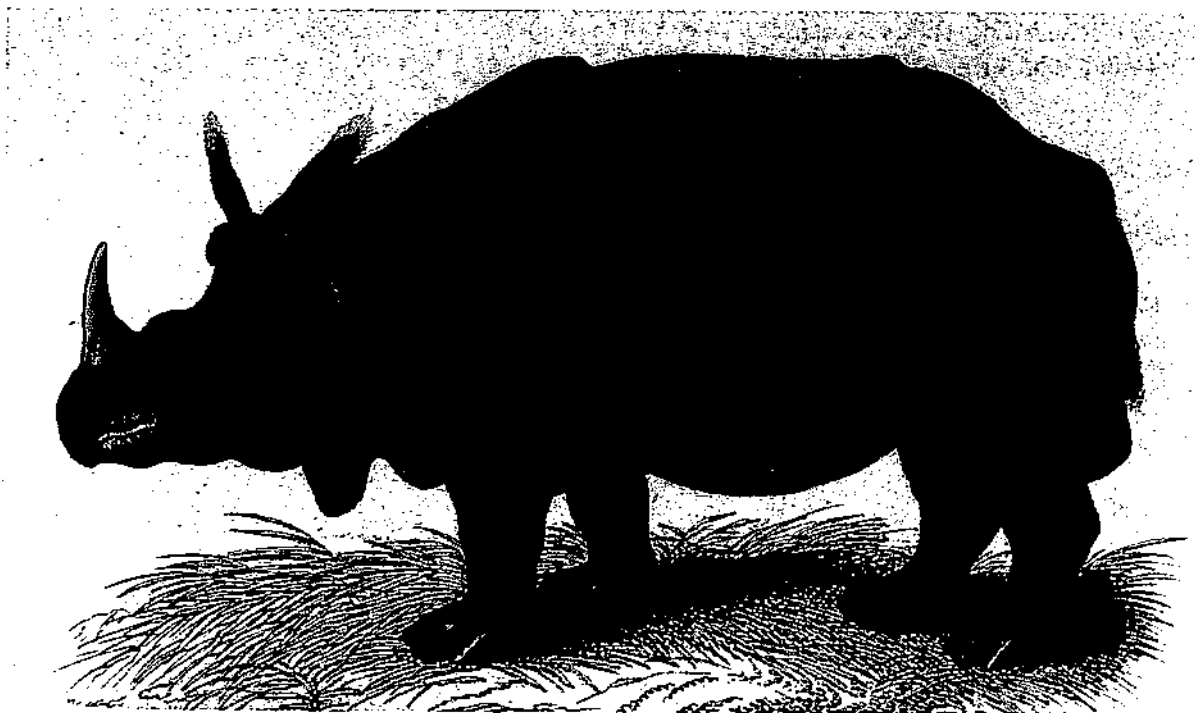
Carrière's story about the auction in Sumatra and the sale to the Jardin des Plantes in Paris seems rather far-fetched. It may be that the rhinoceros was imported in a different way around 1840 or 1841, since in 1841 a 35-year-old rhinoceros called 'Joyeté' was exhibited in Amsterdam.

Rookmaaker and Reynolds (1985: 132) tentatively identified the rhinoceros received in the Jardin des Plantes in 1850 with the one owned by Huguet. In fact, there is no evidence that this was actually the case. Perhaps





*Fig. 35.* Hide of Schreyer's rhinoceros, from 1845, at the Natural History Museum in Vienna. It was prepared to resemble an African species, but with one horn.



*Fig. 36.* Huguet's rhinoceros in Stuttgart, 1848, from a plate by Krauss (1851).

Huguet continued to show the animal, or it may have died around 1850.

1841 Amsterdam  
Shown by Esperou and the Ouvrier Brothers. The animal was named 'Joyeté' and was said to be 35 years old (Keyser 1976: 146). This is thought to be the animal referred to as 'Huguet's Rhinoceros' here, due to resemblance in the age and name.

1846 Amsterdam  
A rhinoceros was exhibited in Amsterdam in 1846 (Keyser 1976: 146).

1847 Paris  
Exhibited in Paris and supposedly bought by the Jardin des Plantes (Von Martens 1850).

?1847 Brussels  
Shown in Brussels after its visit to Paris and before arriving in Stuttgart. A grenadier went into the animal's cage, was mauled and died of his injuries (Von Martens 1850).

1847/1848 Stuttgart  
Krauss (1851, pl. 26) illustrated the Indian rhinoceros which was seen alive in Stuttgart in 1847 (see Rookmaaker and Reynolds 1985, fig. 2). Von Martens (1850) saw the animal there in January 1848. There are no later records concerning this rhinoceros. It could have died soon after.

## Fort Worth, TX, USA

### Zoological Park

M 1990 May 10 –  
'Arun' 190-INDIA L  
A gift from the King of Nepal. About five months old on arrival. Picture published by McLaughlin (1990).

F 1990 May 10 –  
'Arati' 191-INDIA M  
Donated by the King of Nepal. About five months old on arrival.

## Frankfurt am Main, Germany

### Zoologischer Garten

F 1896 April 10 – 1909 August 24 †  
From Berlin Zoo. It was transported by train; drawings of this journey and a photograph of the rhinoceros in its enclosure were published by Scherpner (1983: 79-80). Epstein (1897: 177) recorded that it was blind in one eye and had only a small horn. The animal collapsed in August 1909 and had to be euthanized using morphine by the veterinarian, Dr. E. Marx (see Scherpner 1983: 95 fig.). Its remains went to the Senckenberg Museum in Frankfurt am Main (Marx and Koch 1910, Schlawe 1969: 28).

## Gauhati, Assam, India

### Assam State Zoo

This zoo belonging to the Government of Assam frequently serves as a transit point for rhinoceroses caught in the Kaziranga National Park or other areas in Assam. The latest



Fig. 37. Entrance to Assam State Zoo, Gauhati.



Fig. 38. Indian rhinoceros mating at Gauhati.

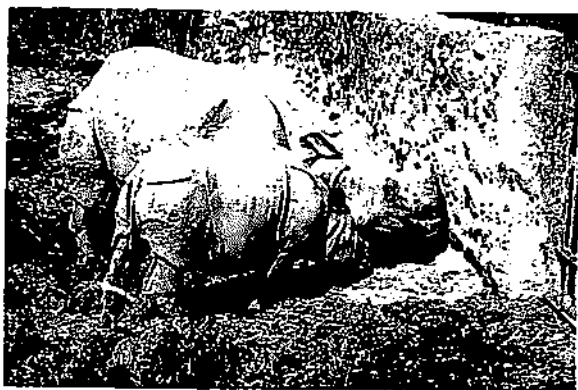


Fig. 39. Gauhati, female with young in February 1996.

records are taken from the studbook kept by Basel Zoo (1988), supplemented by an extract from the data available in Gauhati, listed by the Divisional Forest Officer on 22nd August, 1994. The records show different places of origin, most of which are not clearly identified, but all these localities are in the state of Assam, India. According to Martin and Martin (1982: 78), the zoo marketed rhinoceros urine for some time, until its two tame rhinos were sold in 1980. (See Figs. 37, 38, 39, 40, 41.)

*M* 1957 December 13 – 1959 December 6  
'Mohan'

Caught in the Orang Forest Reserve, Darrang Division, when six years old. To Delhi.

*F* 1958 October 5 – 1964 October 28 †  
'Padmini' 82-KAZ 18

Caught in Kaziranga, when about ten years old. It died of anthrax.



Fig. 40. Three Indian rhinoceroses at Gauhati, February 1996.



Fig. 41. Gauhati, Indian rhinoceros, February 1996.

*M* 1960 June 29 – 1965 November 24

'Mohan Jr.' 33-KAZ 9

Caught in Kaziranga, together with its mother 'Geeta' (following entry). It was born on 7th April, 1960. To Delhi.

*F* 1960 June 29 – 1963 May '25

'Geeta'

Caught in Kaziranga, when nine years old. To Paris Vincennes.

*M* 1960 September 24 – 1986 Sept. 23 †

'Shivaji' 24-INDIA F

Caught in Kaziranga, and was about five years old on arrival. Indian studbook (Kanpur Zoo, 1993) No. NR-01 (with date of death on 23rd September, 1984).

*M* 1962 August 28 – 1964 June 16

'Rajkumar' 76-KAZ 16

Caught in Dharamtul, Nagaon Division, at two months old. Indian studbook (Kanpur Zoo, 1993) No. NR-03. To Hyderabad.

- F* 1962 October 29 – 1963 November 15  
'Deepali' 30-INDIA H  
Caught in Kaziranga, when nine years old.  
The animal was pregnant on arrival and delivered a baby in April 1963. To Washington.
- F* 1963 April 10 – 1963 November 15  
'Deepali Jr.' 28-GAUH 1  
Born to Deepali (30) who was wild bred. At birth, the baby was 22 inches high and weighed 73 lbs. It was sent with its mother to Washington (Chowdhury 1966).
- F* 1963 July 10 – 1965 February 11  
'Japari' 29-GAUH 2  
Born to Shivaji (24) and Padmini (82). Chowdhury (1966) wrongly stated that the animal was born on 10th October, 1963, and was sold on 2nd November, 1963. To San Diego.
- M* 1964 October 28 – 1964 November 13 †  
'Kushal'  
Caught in Kaziranga, when four months old. It died due to severe diarrhea.
- F* 1965 September 25 – 1982 October 19 †  
'Padmini Jr.' 25-INDIA G  
Caught in Kaziranga, when five years old. Indian studbook (Kanpur Zoo, 1993) No. NR-05. It died from acute tympanitis.
- F* 1967 December 23 – 1969 November 25  
'Rukmini' 46-ASSAM 8  
Caught in D.F.O. Nagaon, when eight months old. To Los Angeles.
- F* 1968 February 28 – 1970 March 23 †  
'Larhimi'  
Collected in D.F.O. Nagaon, when about 20 days old. It died of a reaction to an anthrax vaccination (Dutta 1991: 130, Rookmaaker and Reynolds 1985: 151).
- F* 1968 July 29 – 1970 January 23  
'Goiangi' 48-ASSAM 9  
Caught in Kaziranga, when two weeks old. It was sold to Omaha, but died in transit.
- F* 1968 August 1 – 1969 April 5  
'Kalongmukhi'  
Caught in Nagaon Division when five months old. To Vadodara.
- F* 1969 July 20 – 1970 July 24 †  
'Kumari'  
Caught in Nagaon Division, when ten days old. It died of hookworm infection.
- M* 1969 July 26 – 1969 November 27 †  
'Bhisma'  
Caught in D.F.O. Nagaon, when two months old.
- M* 1969 July 27 – 1970 March 23 †  
'Kumar'  
Caught in Nagaon Division, when one year old. It died of anthrax.
- M* 1970 July 30 – 1971 February 27  
'Sasadev' 73-INDIA 1  
Caught in Dharamtul, when 1.5 years old. To Antwerp.
- M* 1971 June 28 – 1973 August 29  
'Santu' 81-ASSAM 13  
Caught in Kaziranga, when 1.5 years old. To Brownsville.
- M* 1971 September 12 – 1974 September 25  
'Krishna' 57-GAUH 3  
Born to Shivaji (24) and Padmini (82). Gestation period 469 days. To Nagoya.
- F* 1973 June 21 – 1975 January 22  
'Radha' 67-KAZ 15  
Caught in Tezpur, when 15 days old. To New York Bronx.
- F* 1973 August 11 – 1977 March 1  
'Usha' 128-ASSAM 17  
Found in Ramdia Barsala, when about three months old. Indian studbook (Kanpur Zoo, 1993) No. NR-08. To Kanpur.
- F* 1973 August 14 – 1975 January 22  
'Mayang Kumari' 66-KAZ 14  
Caught in Mayang, when four months old. To New York Bronx.
- F* 1974 January 3 – 1974 September 25  
'Jaya' 64-ASSAM 10  
Found abandoned in Orang Reserved Forest, when it was about three months old. To Nagoya.
- F* 1974 January 22 – 1974 March 11  
'Mayuri' or 'Kadambini' 95-KAZ 20

Caught in Kaziranga, when 2.5 months old. Indian studbook (Kanpur Zoo, 1993) No. NR-07. A letter from Gauhati Zoo dated 22.8.1994 noted the capture on 22nd October, 1974, and the transfer to Calcutta in 1979. These are probably typing errors, as no rhinoceros was received in Calcutta in 1979, while the transfer of the female Kadambini is not mentioned in Gauhati's letter. To Calcutta.

M 1974 February 12 – 1974 March 11  
'Hihua' 94-KAZ 19  
Caught in Kaziranga, when four years old. To Calcutta.

M 1974 May 23 – 1977 March 1  
'Lachit' 70-GAUH 4  
Born to Shivaji (24) and Padmini Jr. (25), gestation 477 days, weight 44 kg. Indian studbook (Kanpur Zoo, 1993) No. NR-10. To Kanpur.

F 1974 July 21 – 1979 May 25  
'Caitralekha' 155-ASSAM 19  
Caught in D.F.O. Tezpur, when six months old. Indian studbook (Kanpur Zoo, 1993) No. NR-11. To Patna.

F 1974 August 10 – 1977 August 20 †  
'Ajali'  
Caught in Kaziranga, when 1.5 months old.

F 1974 September 16 – 1976 April 4  
'Numali' 153-KAZ 21  
Caught in Kaziranga, when three months old. Indian studbook (Kanpur Zoo, 1993) No. NR-09. To Bhubaneswar.

M 1976 February 2 – 1976 August 7 †  
'Ajit'  
Caught in Kaziranga, when six months old.

M 1976 April 6 – 1976 April 22 †  
'Nakul'  
Caught in Kaziranga, when one month old.

M 1976 November 15 – 1979 October 19  
'Sanjoy' 91-ASSAM 15  
Caught in Lawkhowa Forest, when ten days old. To Lucknow.

M 1977 August 19 – 1979 May 25  
'Vijay' 156-ASSAM 20  
Caught in Singri Nagur, Mangaldoi, when six

months old. Indian studbook (Kanpur Zoo, 1993) No. NR-16. To Patna.

M 1977 August 22 – 1979 November 29  
'Ganesh' 154-KAZ 22  
Caught in Silghat, Nagaon Division, when seven months old. Indian studbook (Kanpur Zoo, 1993) No. NR-13. To Bhubaneswar.

M 1977 October 17 – 1977 December 14  
'Balaram' 215-KAZ 30  
Caught in Kaziranga, when one year and eight months old. Indian studbook (Kanpur Zoo, 1993) No. NR-14. To Chandigarh.

F 1978 January 9 –  
'Padmini' 168-GAUH 5  
Born to Shivaji (24) and Padmini Jr. (25), 461 gestation days. Indian studbook (Kanpur Zoo, 1993) No. NR-17.

M 1978 March 3 – 1987 January 18 †  
'Rajesh'  
Caught in Kaziranga, when said to be an unlikely 42 years old.

F 1978 April 24 – 1979 October 17  
'Krishna Jr.' 92-ASSAM 16  
Caught in Nagaon Division, when three days old. To Lucknow. The Lucknow zoo received a pair of Indian rhinos from Gauhati (Nos. 91 and 92). Although this animal was recorded to be a male in Gauhati, and even has a masculine name, there could possibly have been an error in the transmission of data.

F 1978 June 15 – 1978 July 29  
'Shakuntala' 216-KAZ 31  
Caught in Kaziranga, when seven years old. Indian studbook (Kanpur Zoo, 1993) No. NR-15. To Chandigarh.

M 1978 November 9 – 1978 November 24 †  
'Prabhat'  
Caught in D.F.O. Nagaon, when four months old.

M 1979 April 24 – 1985 February 25  
'Shiva' 217-ASSAM 28  
Caught in D.F.O. Nagaon, when one month old. Indian studbook (Kanpur Zoo, 1993) No. NR-18. To Bombay.

- F* 1980 January 20 – 1983 June 18 †  
'Parbati'  
Caught in Orang Forest Reserve, when six months old.
- M* 1980 January 24 – 1985 January 23  
'Ram' 61-KAZ 13  
Caught in Kuruwa, when five years old. Indian studbook (Kanpur Zoo, 1993) No. NR-26. To Mysore.
- M* 1980 January 27 –  
'Lakshman' 169-ASSAM 21  
Caught in Kuruwa, Assam, when four years old. Indian studbook (Kanpur Zoo, 1993) No. NR-12.
- M* 1980 February 27 – 1986 February 23 †  
'Suchila'  
Caught in Kaziranga, when two months old.
- M* 1980 August 23 –  
'Jhon' 170-ASSAM 22  
Collected from Dharamtul, Nagaon Division, when six months old. Indian studbook (Kanpur Zoo, 1993) No. NR-19.
- F* 1980 August 23 –  
'Gini' 171-ASSAM 23  
Collected from Dharamtul, when two months old. Indian studbook (Kanpur Zoo, 1993) No. NR-20.
- M* 1980 September 3 – 1985 April 17  
'Ramu' 218-KAZ 32  
Caught in Kaziranga, when four months old. To Madras.
- F* 1981 July 3 – 1981 October 11 †  
'Rupa'  
Caught in Kaziranga, when one month old.
- M* 1982 February 6 – 1982 February 7 †  
'Kamal'  
Caught in Kaklabari, when five years old.
- F* 1982 May 2 – 1982 October 27 †  
'Dalimi'  
Caught in Dharamtul, Mayang, when 20 days old.
- M* 1982 May 5 – 1983 January 27  
'Agni' 151-ASSAM 18  
Caught in Kaziranga, when 12 years old. Indian studbook (Kanpur Zoo, 1993) No. NR-23. To Delhi.
- F* 1982 June 4 – 1990 December 12  
'Mohini' 194-INDIA N  
Caught in Kaziranga, when 1.5 months old. Indian studbook (Kanpur Zoo, 1993) No. NR-37. To Delhi.
- M* 1982 June 9 – 1990 September 23 †  
'Shyam Jr.'  
Born to Shivaji (24) and Padmini Jr. (25).
- M* 1982 July 15 –  
'Ganesh' 172-KAZ 23  
Caught in Kaziranga, when ten years old. Indian studbook (Kanpur Zoo, 1993) No. NR-06. The animal has such an aggressive nature that it cannot be kept together with others (Singh *et al.* 1992).
- F* 1983 April 9 – 1983 April 30 †  
'Sabitri'  
Caught in Mayong, Nagaon Division, when one month old.
- M* 1987 May 11 –  
'Bishnu' 173-GAUH 6  
Born to Shivaji (24) and Padmini (168), 461 gestation days (Bhattacharyya and Goswami 1987). Indian studbook (Kanpur Zoo, 1993) No. NR-30.
- M* 1987 August 25 – 1995 October 17  
'Ratul' 174-ASSAM 24  
Collected from Jokhalabandha, Nagaon Division, Assam, when about eight months old. Indian studbook (Kanpur Zoo, 1993) No. NR-33. It was released into Jaldapara/Gorumara National Park in West Bengal (Vigne and Martin 1996).
- M* 1988 September 16 – 1988 Sept. 24 †  
'Babul'  
Caught in Dharamtul, Nagaon Division.
- M* 1988 September 24 – 1993 May 19  
'Ramu' 175-ASSAM 25  
Rescued from floods by Forestry Department at Dhakiajuli, when it was six months old. Indian studbook (Kanpur Zoo, 1993) No. NR-28. To Trivandrum.

M 1989 March 3 –  
'Mohesh' 176-GAUH 7  
Born to Lakhshaman (169) and Padmini (168).  
Indian studbook (Kanpur Zoo, 1993) No. NR-24.

M 1989 June 25 – 1989 June 26 †  
'Kanak'  
Caught in Orang Forest Reserve, when one day old.

M 1989 July 26 – 1993 May 19  
'Jadu' 177-KAZ 24  
Rescued from floods by Forestry Department at Darrang in Kaziranga, when one year old. Indian studbook (Kanpur Zoo, 1993) No. NR-31. To Trivandrum.

M 1989 July 26 – 1989 September 4 †  
'Dhan'  
Rescued from floods by Forestry Department in Kaziranga, when one month old.

M 1989 July 26 – 1995 October 17  
'Madhu' 178-KAZ 25  
Rescued from floods by Forestry Department in Kaziranga, when one month old. Indian studbook (Kanpur Zoo, 1993) No. NR-35. It was released into Jaldapara/Gorumara National Park in West Bengal (Vigne and Martin 1996).

M 1990 April 7 – 1990 April 22 †  
'Prakash'  
Caught in Nagaon Division, when one month old.

M 1990 August 20 –  
'Pradip' 179-KAZ 26  
Collected from Baguri Range in Kaziranga, when three months old. Indian studbook (Kanpur Zoo, 1993) No. NR-38.

F 1991 August 6 – 1991 August 17 †  
'Monomoti'  
Caught in Kaziranga, when four months old. It died of gastroenteritis.

F 1991 August 10 – 1991 September 19 †  
'Joymothi'  
Caught in Kaziranga, when four months old.

F 1991 August 10 –  
'Baghekhaiti' 192-KAZ 27  
Caught in Kaziranga, when one year old. In-

dian studbook (Kanpur Zoo, 1993) No. NR-39. The animal had been attacked by a tiger who had mauled her right foreleg, which healed well (Singh *et al.* 1992).

## Gelsenkirchen, Germany

### Ruhr Zoo

This zoo is owned by Firma Ruhe (animal dealers).

M 1975 August 28 – 1976 June 12  
'Vinu' 53-MYSO 2  
From Mysore. To Toronto.

M 1976 November 23 – 1977 October 31  
'Nabob' 71-STUTT 2  
From Stuttgart. To Sao Paulo.

M 1977 November 2 – 1978 November 2  
'Yamatari' 84-BASEL 15  
From Basel. To Cologne.

## Germany

### Menagerie of J. Planet's widow

ca. 1880

There is a small guidebook (in the collection of Herman Reichenbach, Hamburg) entitled: "Grosse indische Menagerie von Wittwe J. Planet: Verzeichniss sämmtlicher in dieser Menagerie befindlichen Thiere nebst einer kurzen beschreibung der merkwürdigeren Exemplare und ihrer Lebensweise" (Large Indian menagerie of J. Planet's Widow: guide to all animals kept in this menagerie including a short description of the more noteworthy examples and their way of life). The guide is not dated. On pages 10-11, there is an abstract from Brehm's Thierleben (1877) on the rhinoceros with an illustration of a single-horned specimen. Neither the text nor, presumably, the figure refer to the animal actually seen in the menagerie. No further information could be found about either the owner of the show or this rhinoceros.



Fig. 42. Hamburg Zoo, drawn by H. Leutemann.

### Gwalior, Madhya Pradesh, India

#### Collection of the Maharajah of Gwalior

1896

Count Josef Potocki visited the Maharajah in the 1890s and saw a young rhinoceros which was colored red (ready for battle?) at his court (cf. Loisel 1912, III: 18, referring to a Polish book by Potocki, 'Notes de chasses, I. Aux Indes', 1896, p. 18; not seen).

### Hamburg, Germany

#### 1. Zoologischer Garten

This zoo existed from 1860 to 1930 (Schlawe 1972).

*M* 1870 March 14 – 1900 June 12 †  
'Begum'

Caught at the 'Bramaputra' [Assam], transported through the Suez Canal in 35 days to Marseilles, then by train to Hamburg (Noll 1873: 51). It was depicted by H. Leutemann in a drawing published by the *Gartenlaube* (see Fig. 42). Mohr (1957, fig. 8) showed a drawing of this animal by Emil Holst from the *Leipziger Illustrierte Zeitung* of 16th August 1900. It was killed in 1900 due to a wound on its head (Flower 1931: 202) and kidney disease (Bolau 1900). The remains were donated to the Natural History Museum in Hamburg (Bolau 1900). Reynolds (1961a: 24) recorded the date of death as July 1900, probably in error.

#### 2. Zoo in Stellingen (from 1908) Carl Hagenbeck (dealer)

*F* 1929 – 1955 June 15 †  
'Nepali I'

Probably arrived in 1929, as recorded by Lang (1961: 371), Guggisberg (1966) and Blaszkiewicz (1980: 88). However, Rohr (1959) said that Carlo Hagenbeck bought it in Nepal in 1930 for £2000. Iles (1960: 19) saw it at the zoo in 1930, when Carl Hagenbeck (nephew of Heinrich Hagenbeck) rode it around the paddock.

*F* 1957 June 11 – 1968 April 16  
'Nepali II' 16-KAZ 7

Caught in Kaziranga, about one year old on arrival. It went on breeding loan to Basel from 21st September 1962, to 28th May 1963, and from 3rd November 1965, to 13th April 1966. To Los Angeles.

*M* 1960 July 12 – 1961 June 20 †  
'Arun'

Imported when about five years old (Rookmaaker and Reynolds 1985: 151 after C.H. Hagenbeck).

*M* 1964 August 11 – 1965 August 6  
'Gauhati' 32-HAMB 1  
Born to Basel's male Gadadhar (05) and Nepali II (16), gestation 462 days (Hagenbeck 1966). To Berlin Zoo.

*F* 1967 April 9 – 1994 January 8  
'Shita' 38-HAMB 2  
Born to Basel's male Arjun (18) and Nepali II (16), gestation 464 days. Sent on breeding loan to Berlin Zoo from 12th April, 1983, to 13th June, 1985. To Singapore.

*M* 1968 September 5 – 1994 January 8  
'Pandur' 39-BASEL 7  
From Basel. In December 1985, Pandur managed to break a bar of the fence around his enclosure and entered Shita's cage, which resulted in a fight (*Bild*, 30.12.1985). To Singapore.

### Houston, TX, USA

#### Bush Gardens

*M* 1970 October 6 – 1971 February 9 †  
'Ruedi' 44-BASEL 9  
From Basel. Died of nephritis.



**F** 1970 October 6 – 1972 April 6  
 'Randa' 45-BASEL 10  
 From Basel. To Brownsville.

# **Hyderabad, Andhra Pradesh, India**

## *Nehru Zoological Park*

Khan and Choudhury (1987) presented some details about births occurring between 1971 and 1981.

**M** 1964 June 24 – 1983 August 19 †  
 'Rajkumar' 76-KAZ 16  
 From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-03. It died of viral infection.

**F** 1968 June 26 – 1983 August 19 †  
 'Padma' 77-KAZ 17  
 Caught in Kaziranga. Indian studbook (Kanpur Zoo, 1993) No. NR-04. It died of viral infection.

**M** 1971 November 25 – 1983 August 11 †  
 'Rajesh' 58-HYDE 1  
 Born to Rajkumar (76) and Padma (77), gestation 459 days.

1975 May 12 – 1975 May 12 †  
 A six-month-old fetus was aborted by Padma (77), according to Khan and Choudhury (1987: 14).

**M** 1978 November 12 – 1983 June 17  
 'Laddu' 96-HYDE 2  
 Born to Rajkumar (76) and Padma (77), gestation 478 days. To San Diego Wild Animal Park (through H. Demmer). According to the studbook (Basel Zoo 1988) and the records kept in San Diego, the transferred animal transferred would have been studbook No. 106. However, the letters from Mr. K.N. Benarji, curator of the zoo in Hyderabad, confirm that this was a mistake.

**M** 1981 May 15 –  
 'Srinivas' 106-HYDE 3  
 Born to Rajkumar (76) and Padma (77), gestation 484 days. Indian studbook (Kanpur Zoo, 1993) No. NR-21.



Fig. 43. A chained rhinoceros drawn by unknown Indian artist in the 18th century.

## **India**

There are several depictions of rhinoceros in miniatures and other art works produced in India between roughly 1500 and 1650. A few have been illustrated in recent works (see Ettinghausen 1950, pls. 30,32,33,36,37; Rookmaaker 1984b: 560). This may only show that the people from different parts of the Indian subcontinent knew about the rhinoceros, but they could have seen the animal in the wild. In addition to those listed earlier, I would like to draw attention to a depiction in the British Museum, London (Rawson 1977: 85). An 18th century drawing in Marquess Wellesley's Collection of Natural History Drawings (India Office Library and Records NHD 32, f.47) shows an Indian rhinoceros with a rope and a chain around its neck (see Fig. 43). This clearly indicates captive life, but it is not known where the animal was.

Another story may be quoted here for the sake of interest. Where it happened is not known, but it refers to the year 1857: "I recollect an amusing story of a soldier during the Indian Mutiny who was placed in the guardroom for shooting a tame rhinoceros which had been captured by his regiment. His defence was that he had read in a book that the hide of the animal was bullet-proof; and being of an inquiring mind, had determined to put the theory to the test! As the shot was well-directed, the unfortunate subject of the experiment fell dead" (Kinloch 1892: 84).

## *Various early reports*

1409 January 4 in Delhi  
 Timur (Timurlane) said that on this date the king had a parade with his elephants and 'les

Rhinocéros' (Petis de la Croix 1723: 106). No further particulars. I presume that Guggisberg (1966: 130) referred to this same occasion when he said that Timur was "greeted by King Mohamed Nassir ed Din's twelve tame rhino, all respectfully lowering their head", although I cannot find the 12 in my text.

#### 1513, India

Gaspar Correa, in his *Lendas da India*, described a battle between Sultan Baber and King Cacander or Sikander, at an unknown time and place (Yule and Burnell 1886: 363). The King's army had many elephants, and there were "80 rhinoceroses (Gandas) like that which went to Portugal ... these on the horn which they have over the snout carried three-pronged iron weapons with which they fought very stoutly." This is the only reference to rhinos used for fighting, and if true, it must have been a terrifying sight.

#### 1615 in Ajmer, Rajasthan

From July 1615 to September 1616, Thomas Coryat, the English traveller was at the court of the Mughal Emperor Jehangir (1605-1627), at that time in Ajmer. In his letters (Coryat 1616) he said that he saw two rhinoceroses from Bengal, besides many other animals at the court: Jehangir "keepeth abundance of wilde beasts, and that of divers sorts, as lions, elephants, leopards, beares, antlops, unicornes; whereof two I have seene at his court, the strangest beasts of the world. They were brought hither out of the countrie of Bengala."

#### ca. 1660 in Delhi

François Bernier (1699: 42) visited the Mughal Empire in the years following 1657, during the reign of the Emperor Aurangzeb (1658-1707). In his book he mentioned that there were many 'rhinoceroses' in Dehli [sic] kept at the court.

In the collection of Christian V, King of Denmark, a double horn was recorded at the end of the 17th century (Jacobaeus 1696: 4). He stated that the animal had been killed at the court of the Indian Mogol. The horn is illustrated, certainly double, but no further details are available.

#### 1665 December 2 in Gianabad

In 1665, Jean-Baptiste Tavernier (1676: 71, 1924, I: 93) travelled from Agra to Patna. At

a place called Gianabad (Kora, 50 km south of Kanpur, Uttar Pradesh) he saw "a rhinoceros eating stalks of this millet, which a small boy nine or ten years old presented to him. On my approaching he gave me some stalks of millet, and immediately the rhinoceros came to me, opening his mouth four or five times." The animal was seen in a field somewhere, not in any kind of enclosure, but its tameness would suggest some kind of captive life.

#### 1671 in Kasimbazar

Jacobus Verburg was an officer of the Dutch East India Company in Bengal. One day in 1671, he returned to one of the permanent trading stations on the River Ganges, at Kasimbazar, near Mushidabad, Bihar. Hunters presented him with a young rhinoceros, the mother of which had been killed in the forest. The young one was said to be five feet high and showing the start of a horn. The fate is not known (de Graaff 1701: 131).

#### ca. 1800 in Bhagalpur

Williamson (1807: 45) told that a Mr. Cleaveland, a collector from Bhangulpore, was said to possess a rhinoceros. This was Augustus Cleveland, the District Officer at Bhagalpur, Bihar, India, at the end of the 18th century.

#### ca. 1807 in Patna

Mr. Young of Patna, Bihar had a rhinoceros which "used occasionally to walk the streets" (Williamson 1807: 45).

#### 1852 near Allahabad

On 12 February 1852, Mr. R.H. Dunlop, Joint Magistrate, captured the dangerous outlaw Rundheer Singh, of Syfabad. This man had fled from his usual place in Oudh (Lucknow)



Fig. 44. Rundheer Singh's rhinoceros in 1852.

and was captured just south of the Yamuna River. In his camp, his captors found seven elephants and "an unusually large and intrac-table rhinoceros", which were "made over to the Lucknow authorities". The report on this event in the *Illustrated London News* of 15th May 1852 (pp. 387-388) was illustrated with a sketch of the rhinoceros made by F. Slinger, deputy collector from Allahabad (see Fig. 44).

## Jaipur, Rajasthan, India

### Zoological Gardens

This zoo was founded in 1875 by Raja Ram-singh of Jaipur.

*F* 1946 - ?

From Udaipur. It was alive in 1964 (Rook-maaker and Reynolds 1985: 153, according to the annual census in *International Zoo Year-book*, vol. 5).

## Kanpur, Uttar Pradesh, India

### Allen Forest Zoological Park

This is a new zoo on a 184-acre property, opened to the public in February 1974. Sab-harwal (1989) gives details of the births up to 1989.

*M* 1977 March 4 - 1992 August 8 †  
'Lachit' 70-GAUH 4  
From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-10.

*F* 1977 March 4 -  
'Mayung Kumari' 128-ASSAM 17  
From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-08.

*F* 1982 October 1 - 1985 December 4  
'Rashmi' 122-KAN 1  
Born to Lachit (70) and Mayung (128), gesta-tion 487 days. To Yokohama.

*M* 1984 December 6 -  
'Lohit' 129-KAN 2  
Born to Lachit (70) and Mayung (128), gesta-tion 486 days. Indian studbook (Kanpur Zoo, 1993) No. NR-25.

*M* 1987 June 17 -  
'Mohit' 140-KAN 3  
Born to Lachit (70) and Mayung (128), gesta-tion 471 days. Indian studbook (Kanpur Zoo, 1993) No. NR-29.

*M* 1989 June 23 -  
'Rohit' 160-KAN 4  
Born to Lachit (70) and Mayung (128), gesta-tion 474 days. Indian studbook (Kanpur Zoo, 1993) No. NR-36.

*M* 1991 July 5 -  
'Mudit' 186-KAN 5  
Born to Lachit (70) and Mayung (128). Indian studbook (Kanpur Zoo, 1993) No. NR-40.

## Kathmandu, Nepal

### 1. Collection of King of Nepal

*M+F* 1823/1824  
Parents of a calf born in May 1824. No further particulars. Hodgson (1834), referring to one of this pair or to another specimen, stated that a rhinoceros "taken mature, was kept at Kathmandu for 35 years without exhibiting any symptoms of approaching decline".

*M* 1824 May - 1834  
Born. This was the first birth of an Indian rhinoceros in captivity. It was captive-bred, but no details are known about the parents. Its gestation period was estimated at 17-18 months. A drawing was made on 1 March, 1833, in Kathmandu, now in the Hodgson MSS. in the library of the Zoological Society of Lon-don (Rookmaaker 1979, fig. 1; Hodgson 1825, 1826). The animal was sold to Calcutta in 1834, but its final destiny is not recorded (see Fig. 16).

ca. 1905

Lydekker (1909) told about a hunt in the Ne-pal terai. On that occasion, 21 females were shot, while six males were captured alive. Three of these were sold to Hagenbeck, "while three were kept by the Nepal Government, having been now tamed and trained for rac-ing".

In 1907, Hagenbeck imported three Indian rhinoceroses destined for the zoos in Antwerp,

Manchester and New York. A fourth one lived from 1907 to 1926 with the Barnum and Bailey circus in the USA.

## 2. Zoological Gardens

*M* 1939 - ?

A male arrived in 1939, but its death is not recorded (Rookmaaker and Reynolds 1985: 152 after information received from K. Tobler in Basel).

1964/1965

Ullrich (1967: 61, fig. 8) published a photograph exhibiting two Indian rhinos in an enclosure in Kathmandu Zoo. No further details were given. Probably the same pair was seen by C. Jarvis in May 1964 (Rookmaaker and Reynolds 1985: 152).

*F* 1980 May 17 - 1990 January 27 †

114-NEPAL 12

Caught wild. The animal died from the effects of poison-containing zinc phosphide administered by gangsters who entered the enclosure to take the horns (Bhandary *et al.* 1990, Martin 1993: 5).

*M* 1984/85 (?) - 1990 January 27 †

When the previous female was poisoned, a six-year-old male rhinoceros underwent the same fate, and his horn was cut off (Martin 1993: 5). There is no other information about this specimen.

## Liberec, Czech Republic

*Severoceska Zoologicka Zahrada*

*M* 1989 November 9 -

141-DVKR 2

From Dvur Kralove.

## Lisbon, Portugal

### 1. Collection of King Manuel I

1515 May 20 - 1516 January †

*First Lisbon or Dürer Rhinoceros*

The first rhinoceros in post-medieval Europe. It was a present from the Indian Sultan Muzafer II of Cambaia (= Gujarat, Western India)

to Albuquerque, the Portuguese Governor in India. It was transported to Portugal on the ship *Nostra Senora da Ajuda*. In Lisbon, it was kept in the stables of King Dom Manuel I 'The Fortunate' (1495-1521). To test Pliny's assertion that rhinos and elephants are eternal enemies, a fight between the two species was arranged on Sunday, 3rd June, 1515: the elephant fled.

In December 1515, Manuel I decided to present the animal to Pope Leo X in Rome. On the way, the ship called at the port of Marseilles, France, where King Francis I went to visit it. Soon after, off the coast of Porto Venere in Italy, the ship was caught in a bad storm and the rhinoceros drowned. It could be that the body of the animal was later recovered and mounted, but these remains are not known to exist (Rookmaaker 1973b, Clarke 1986).

Hans Burgkmair made a woodcut of this first Lisbon rhinoceros in 1515 (Rookmaaker 1973a, fig. 3). Much more famous were the drawing and woodcuts by Albrecht Dürer dated 1515. Apparently, Dürer never saw the rhinoceros, but he relied on a report with a simple sketch of the animal by the German businessman, Valentim Fernandez. Dürer's unequalled rendering can easily be recognized by the small horn on the shoulders of the animal. It became the established portrait of the rhinoceros until at least the middle of the 18th century by means of countless copies in all sorts of art forms (Clarke 1986) (see Fig. 45).

### 2. Collection of King Philip II

1579 - 1583

*The Madrid Rhinoceros*

This animal arrived in Lisbon in the weeks before 15th February, 1579, when it was first mentioned. The Spanish King, Philip II, had temporarily moved the capital from Madrid to Lisbon for political reasons. However, in 1583, the court returned to Madrid, and the rhinoceros was moved at the same time (see Madrid).

The Madrid rhinoceros was immortalized in an engraving by Philippe Galle, printed in Antwerp in 1586. Although this depiction sometimes appears in later works of art, it was no rival to Dürer's supremacy. Recently, an un-

RHINOCERON 1515

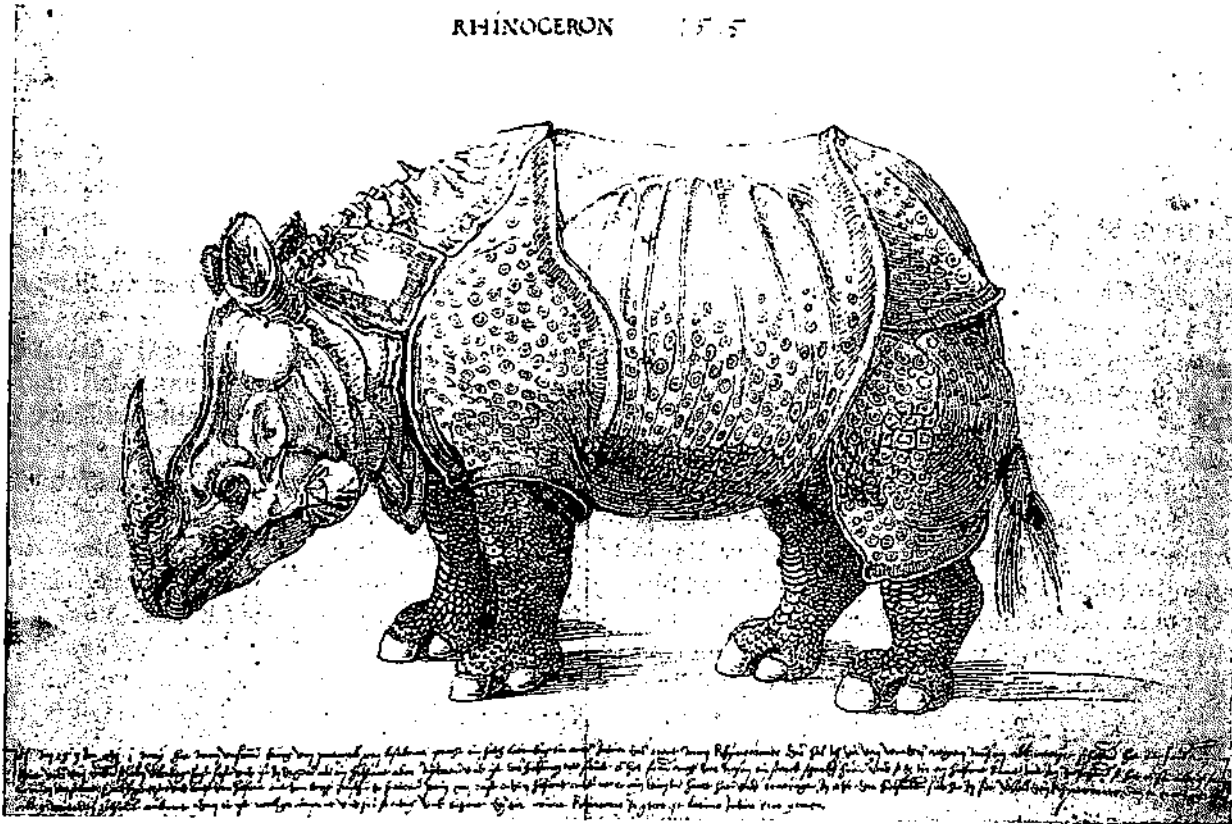
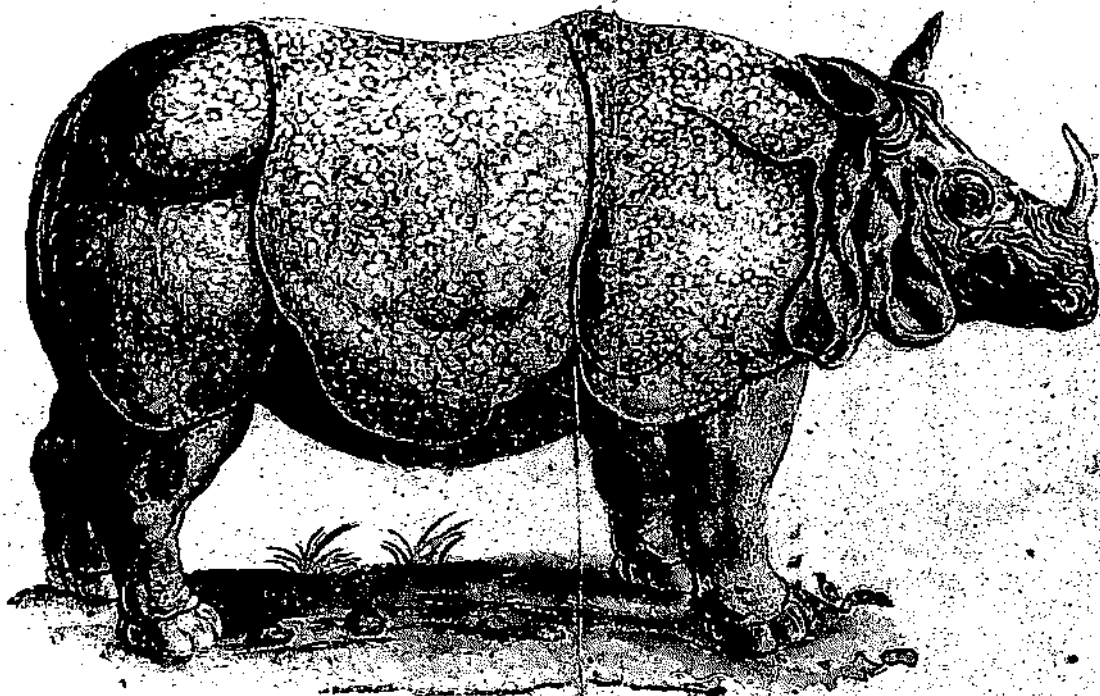


Fig. 45. First 'Lisbon rhinoceros' drawn by Albrecht Dürer in 1515.



**RHINOCEROS** ex India Vysiponam alady, inde Madritum in aulam adductus, statim  
animu agitur decemvnterium, Corp' totu' autu' a vntro ad clunium extenau longitudo' duodecim  
pedum Continet. Higani tunc affada appellant. Cuiu' imagina ad vntum depingenda. Cuius leuau  
Nostrius Philipp' II. Higaniuq' regis Sacelluq'.

Fig. 46. The 'Madrid rhinoceros' drawn by Philippe Galle in 1586.

related watercolor of the rhinoceros was discovered, prepared for the Emperor Rudolf II of Prague between 1585 and 1590 (Clarke 1986: 28-34) (see Fig. 46).

## Liverpool, UK

### Zoological Gardens

This zoo existed from 1832 to 1863, and was owned by Thomas Atkins.

*M* 1834 June – 1841/1843 †

Shipped from Calcutta at the beginning of 1834, "by Captain Pope, ship *Duke of Northumberland*" (Atkins 1838). It arrived in England in June 1834, where it was purchased by Thomas Atkins for £1000. Atkins was the owner of a travelling menagerie and had a more permanent address at the Liverpool Zoological Gardens. The rhinoceros was kept in Liverpool when not on tour. It is recorded that it went to Dublin Zoo in July to August 1835, and to Edinburgh (and perhaps Glasgow) in 1835/1836 (Jardine 1843).

The date of death is not recorded. In 1841 it was still alive, while in 1843 its remains

were catalogued in the British Museum, London. It was later found (G. Griffiths, in litt. September 1996) that the zoo had advertized the presence of a rhinoceros in *Gore's Directory* published in Liverpool, not only in 1841, but also in the editions of 1843, 1845 and 1847, but not in 1849. The implications of this find are hard to assess at present as they conflict with the mounting of the specimen in London in 1843.

Rookmaaker (1993) discussed the full history of this specimen. There has been some debate about its identity. Reynolds (1961a: 31) listed it under *Rhinoceros sondaicus*, while Kourist (1970: 142-144) noted some differences from *Rhinoceros unicornis*. From an analysis of its history and information about its remains, Rookmaaker (1993) referred it to *Rhinoceros unicornis* (see Fig. 47).

## London, UK

### 1. Early specimens

*F* 1684 August 23 – 1686 September 21 †

This Indian rhinoceros was brought on the East India Company's ship *Herbert*, command-

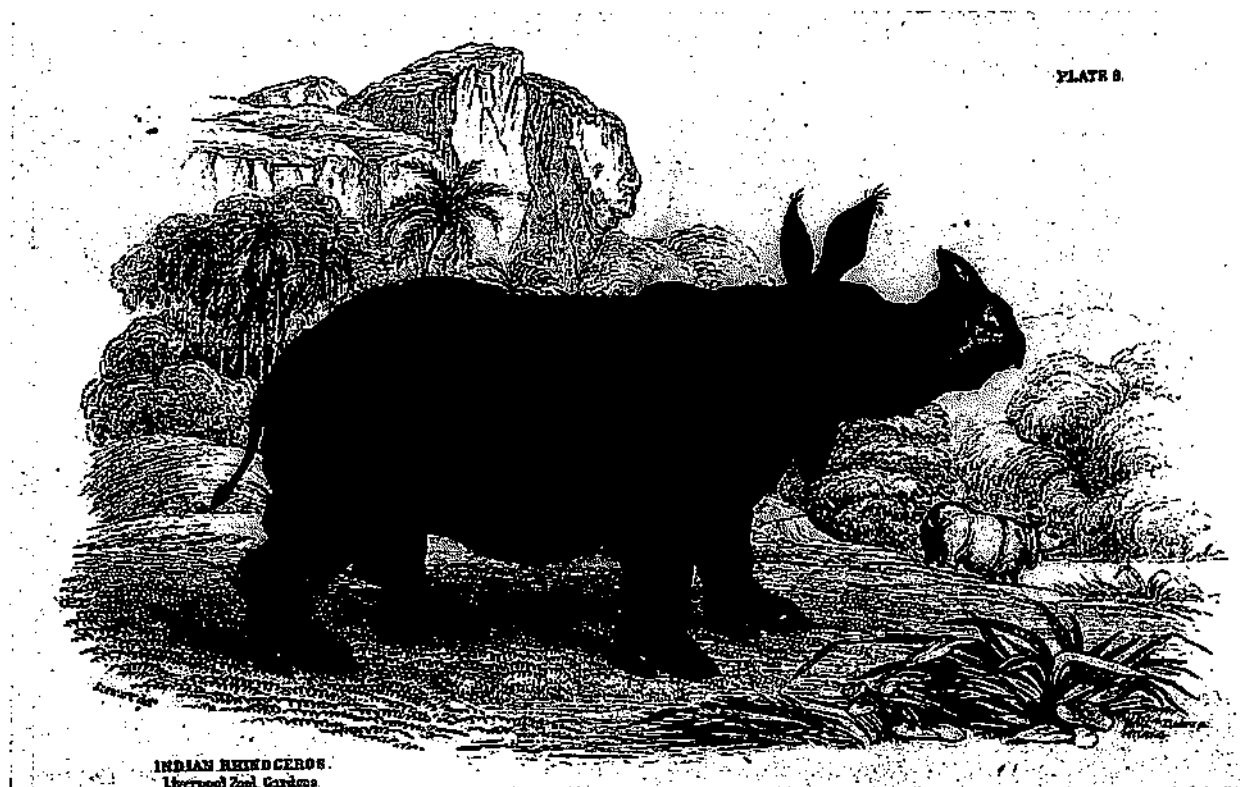


Fig. 47. The mysterious 'Liverpool rhinoceros' of 1834-1841, from Jardine's *Naturalist's Library*, 1843.

ed by Captain Udall, from the Court of Gulkindall (Rookmaaker 1978b: 23 after a contemporary engraving). Gulkindall was perhaps Golconda, the present Hyderabad. Its arrival was noted on 23rd August, 1684 (Clarke 1986: 38). The animal was auctioned on 25th August and bought by a certain Mr. Langley. However, Langley could not raise the price of £2320 and the animal was put up for sale again on 30th August, without a buyer coming forward (Clarke 1986: 38). It is not clear who later exhibited it, but it was first seen at the Bell Savage Inn on Ludgate Hill, London. It was visited by important people such as Guilford North, the Lord Keeper, and by the diarist John Evelyn (22nd October, 1684). The whereabouts of the animal after 1684 are not well documented. A newsletter dated 28 September, 1686, stated that it had died during the previous week. Only one engraving of this animal has been found (Rookmaaker 1978b: 23, Clarke 1986: 39).

#### M 1737

Captain Matthew Booke, commander of the East Indiaman *Shaftesbury*, transported a rhinoceros from India to London in 1737. It died on the way. Someone on the ship made a drawing after it had died, which was later copied by George Edwards (British Museum, London, Sloane Collection; see Clarke 1986: 42, fig. 21).

#### F 1737

In an undated newspaper advertisement, it is claimed that a female rhinoceros was to be seen at the George Inn on the Haymarket. It had arrived one month earlier on board the *Shaftesbury* (Rookmaaker 1997). It may have been a mate of the previous male, but no further evidence has yet come to light.

#### M 1739 June 1 – ca. 1744 †

James Parsons (1705–1770) saw this two-year-old male rhinoceros on 15th June, 1739, in Eagle Street, Red Lyon Square, London. He made at least 13 sketches and drawings in red chalk (preserved in the Hunterian Library, University of Glasgow). From these, he later made an oil painting, which hangs in the Natural History Museum, London (Mammal Section). An engraving 'published 10th October 1739' after one of Parsons' drawings stated that the animal was sent to England by Humffreyes Cole, Chief of the East India Com-

pany's station in Patna, Bihar, India. It arrived in London on 1st June, 1739. Parsons read a long letter about the rhinoceros at a meeting of the Royal Society on 9th June, 1743, and he illustrated his talk with his own drawings. He never mentioned anything about the death of the animal, which could mean that it lived beyond 1743, and a drawing of a rhinoceros made in June 1744 by William Twiddy in Norwich seems to support this. However, the lack of information about the life of the animal may indicate that it died soon after arrival. The various illustrations of this rhinoceros, by Parsons and others, were discussed and figured by Clarke (1986: 42–46) and Rookmaaker (1973b: 46, 1978b: 23–30) (see Figs. 2, 48).

#### 2. Exeter 'Change on The Strand

In 1770, Thomas Clark took a long lease on the Exeter 'Change and the adjoining Lyceum in the Strand, London. He exhibited a variety of animals both on the first floor of the Exeter 'Change and in the Lyceum. In February 1793 the buildings and animals were taken over by Gilbert Pidcock (d. 1810). After Pidcock's death, the ownership of this 'menagerie' went to S. Polito. The show on the Strand was closed in 1828.

There were two rhinoceroses at the Exeter 'Change before 1800. Loisel (1912, II: 17) mentioned the dates 1770 and 1799. However, the first date must have been a clerical error for 1790 (Clarke 1986: 70).

#### M 1790 – 1793 June †

Bingley (1804: 487–489) stated that this rhinoceros was a present from the King of 'Laknaor' to Mr. Dundas, and was shipped on the *Melville Castle*. Laknaor probably was Lucknow, India, where the kings of Oudh were known to have had a menagerie with several rhinoceroses over the years. The Rt. Hon. Henry Dundas, President of the Board of Commissioners for the Affairs of India, had no space for a rhinoceros. On arrival in England, the animal was about five years old. It was purchased by Thomas Clark for £700, to be exhibited either in the Lyceum or the Exeter 'Change from 1790 onwards.

The rhinoceros dislocated one of its front legs in October 1792, and the resulting inflammation later led to its death (Jardine 1843: 171). On 3rd June, 1793, the rhinoceros was

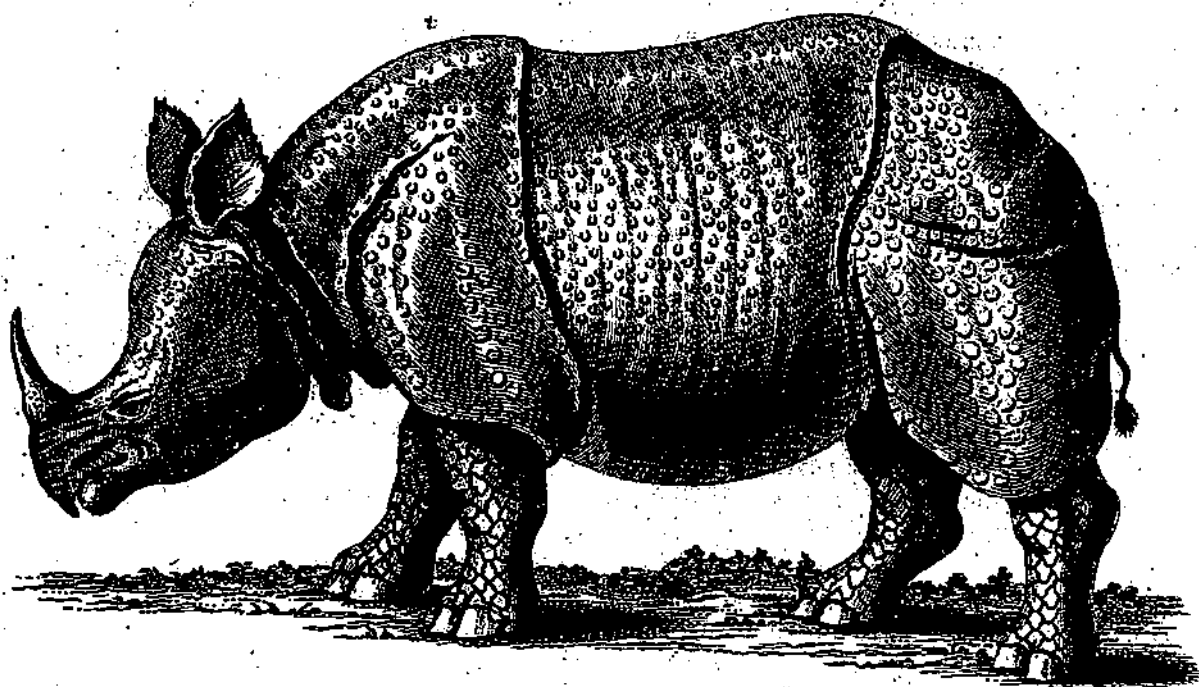
*Philos. Trans. N° 470. TAB. I.**J. Parsons MD. del.**J. Stedman del.*

Fig. 48. Indian rhinoceros in London in 1739 depicted by James Parsons, shown here with added long horn.

taken to the residence of King George III, and it continued travelling to the races at Ascot Heath (Clarke 1986: 73). According to Bingley (1804), it "died in a Caravan at Corsham near Portsmouth", probably also in June 1793. The remains were buried, but the hide and some bones were dug up about 14 days later. Robert Jameson, professor in Edinburgh, visited London in 1793 and, on 6th September, 1793, at St. Bartholomew's Fair in West Smithfield he saw the hide of "Rhinoceros Unicornis, a young one preserved, it had been alive about three years in the Lyceum and died a short time before I came to London, which loss I much regretted" (Sweet 1965: 91).

The likeness of this rhinoceros is found on a number of token halfpennies (Clarke 1986: 74). The painting of the rhinoceros in the Museum of the Royal College of Surgeons represents this specimen in the Exeter 'Change.

It was painted by George Stubbs (1724-1806) presumably around 1790 (Clarke 1984, 1986: 75) (see Fig. 49).

#### *M 1799 - 1800 †*

Arrived in 1799 and lived for about 12 months (Bingley 1804: 489). It was exhibited by Pidcock, probably at the Exeter 'Change. Pidcock sold it for £1000 to the German Emperor, but it died before it could be shipped. It was dissected by H. Leigh Thomas (1801), who said that it had come from the East Indies destined for Vienna, that it had developed some difficulties in breathing a few days before its death, and that it had died before attaining its third year. Clarke (1986: 75-77) described sketches by Samuel Howitt and by Thomas Rowlandson, which may depict this rhinoceros.

#### *M 1810 - 1814*

Arrived in 1810 from an unrecorded place. In



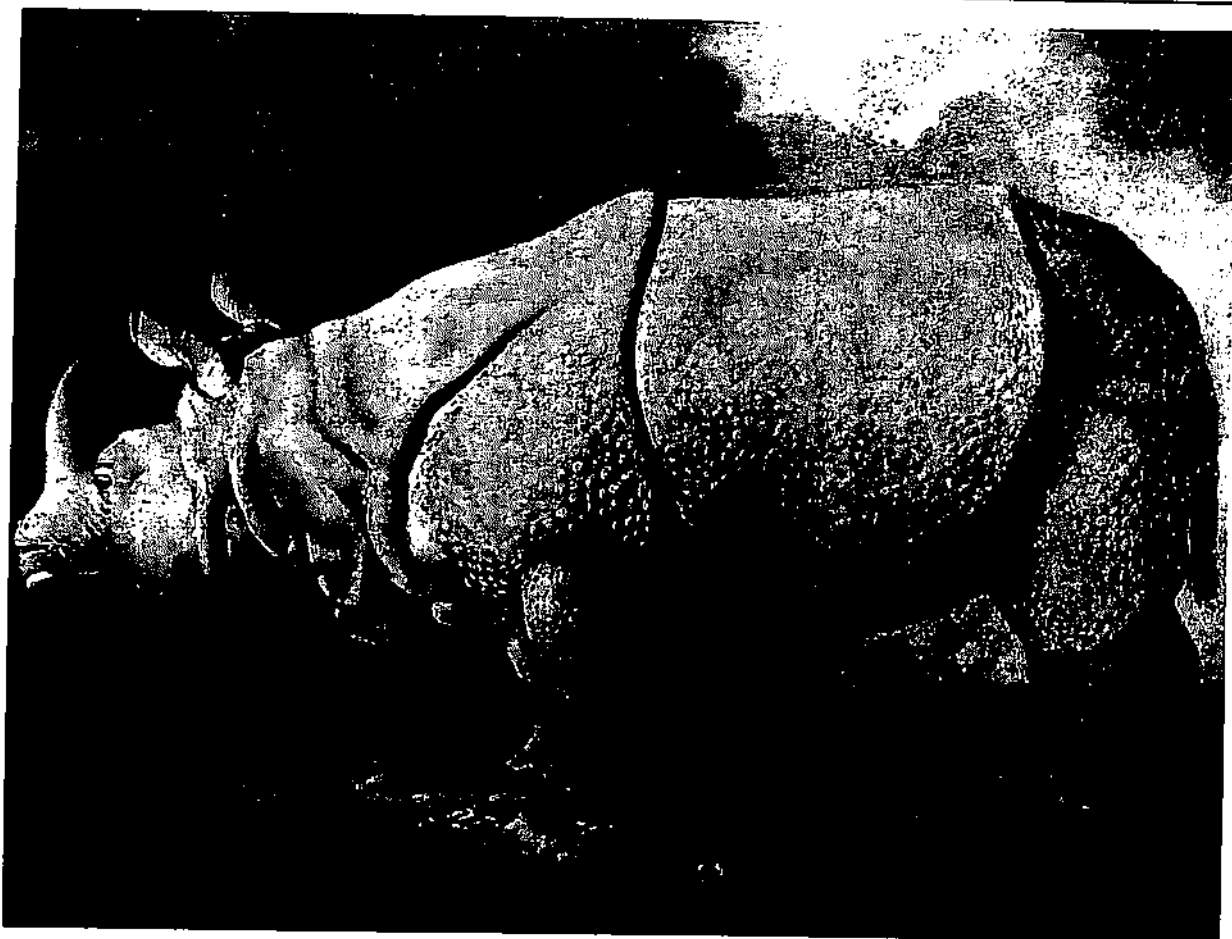


Fig. 49. Rhinoceros at London's Exeter 'Change in 1790-1793, painted by George Stubbs.

1814 it was sold to the Royal Zoological Garden in Stuttgart, Germany, but it never arrived there. Instead, it was taken around many European countries until its death in 1839. The full history of 'Tourniaire's rhinoceros' is presented above, cf. Europe – Traveling menageries.

### 3. Surrey Zoological Gardens

This zoo, owned by the animal dealer Edward Cross, opened its gates in 1831. It was located at the Manor House of Wandsworth, near London (Blunt 1976: 18). It was in part the successor of the exhibition at the Exeter 'Change. In 1829 this show had become the property of Cross, who moved it first to the Kings Mews in London, and then to Surrey.

#### 1834

A zoo guidebook dated May 1834 (copy in the Natural History Museum, London) mentions a 'Rhino Pavillion' (exhibit No. 8) inhabited by an Indian rhinoceros (Keeling 1984: 19-20).

In November 1834, another guidebook was issued, but this includes no mention of a rhinoceros.

### 4. Zoological Society of London

*M* 1834 May 20 – 1849 September 19 †

Purchased for £1050 from Capt. Fergusson, who had imported it from India. Sclater (1876a: 645) gave 28th May, 1834, as the date of arrival. At that time, it was four years old and 10' 6" long. It was first exhibited in the Wapiti Deer House, and on 6th July, 1837, was transferred to the Elephant House (Verstraete 1992). The rhinoceros is depicted on a lithograph made by the German artist Georg Scharf (Kourist 1970: 146, no illustration). The skeleton is mounted at the Natural History Museum, London, No. 51.11. 10.2 (see Groves 1982: 253), while the hide was mounted over the hide of the Liverpool rhinoceros (Sclater 1876a: 650 note).

This rhinoceros became famous posthumously through the dissection by Richard

Owen (1804-1892), who published his classic memoir on its anatomy in 1862. Owen wrote to one of his sisters: "Amongst other matters time-devouring, and putting out of memory mundane relations, sisters included, has been the decease of my ponderous and respectable old friend and client the rhinoceros. I call him 'client' because fifteen years ago I patronised him, and took it upon my skill, in discerning through a pretty thick hide the internal constitution, to aver that he was worth the 1000 guineas demanded for him. The Council had faith, and bought him, and he has eaten their hay, oats, carrots and bread in Brobdignagian daily quantities ever since, and might have gone on digesting had he not, by some clumsy fall or otherwise inexplicable process, cracked a rib; said fracture injuring the adjacent lung and causing his demise. His anatomy will furnish forth an immortal 'Monograph'..." (R.S. Owen 1894: 347).

#### 1850

There are two separate entries on rhinoceroses belonging to Jamrach in the Daily Occurrence Books of London Zoo, discovered by John Edwards, London: 20 March 1850: "Sent Rhinoceros belonging to Mr. Jamrach returned." 15th April 1850: "Rhinoceros belonging to Mr. Jamrach to be taken care of." These entries may refer to the animal which arrived in July 1850, or to other specimens.

#### F 1850 July 5 - 1873 December 14 † 'Miss Bet' or 'Betsey'

Purchased from Jamrach for £350. The date of arrival is usually stated as 17th July, but 5th July was recorded in the Daily Occurrence Books of the zoo. The horn grew in a forward direction: three-quarter was sewn off in Spring

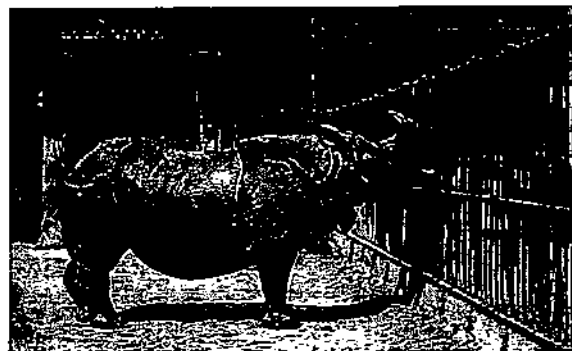


Fig. 50. Postcard of 'Jim', Indian rhinoceros in London 1864-1904.

1872 (Noll 1873: 50, Newman 1872, Sclater 1871, 1876a: 646, fig.1). In December 1870, the animal fell through the ice in the moat, which was covered with snow, and could only just be rescued by Bartlett and his helpers (Buckland 1870: 484). Two photographs taken by Frank Haes in 1864 and another by Frederick York can be seen in the collection of John Edwards, London (published in Edwards 1996a: 118, 119).

#### M 1864 July 25 - 1904 December 12 † 'Jim' or 'Jemmy'

Caught in Assam, presented by a Mr. A. Grote. It was purchased in Calcutta and brought from there by the headkeeper James Thompson, together with the following female. It may have lived for a short time prior to shipment in Barrackpore Park, Calcutta. In August 1870, it wrenched off its horn when it tried forcibly to open a gate. In November 1872, it severely injured two keepers, Andrew Thompson and Richard Godfrey, as told by Blunt (1976: 170-172, with an illustration from the *London Clipper*). Burne (1905) discussed its viscera. It is illustrated in Sclater (1876a, pl. XCV) after a drawing by J. Wolf. A photograph can be found in Anonymous (1896a: 21), while two others dated 1865 and 1900-1904 were illustrated by Edwards (1996a: 121-122) (see Fig. 50).

#### F 1864 July 25 - 1865 June 20

Caught in Assam and brought from Calcutta with the previous male. In 1865 it was sent to Paris in exchange for 'Jumbo', the famous African elephant.

#### M 1886 December 25 - 1911 December 30 † 'Tom' or 'Moses'

Presented by H.H. The Maharajah of Cooch Behar, through Dr. B. Simpton (Pocock 1912). Edwards (1996a: 130) includes a photograph taken around 1905.

#### M 1906 June 9 - 1924 January 4 † 'Carlo'

Presented by King George V (then Prince of Wales).

#### M 1912 May 21 - 1921 November 2 †

From Calcutta (see discussion under that heading). It had been caught in Nepal. Presented by King George V (then Prince of Wales). A photograph can be found in Edwards (1996a: 130).

*F* 1922 April 7 – 1926 April 28 †  
'Bessie'

Caught in Chitawan, Nepal. King Edward VIII, then Prince of Wales, was invited to a shoot in the Chitawan area in December 1921, and his party shot eight rhinos and 17 tigers. On 18th December, 1921, at the shooting camp in Biknathori, the Maharajah of Nepal presented a group of animals to the prince, including a young Indian rhinoceros. The animals reached Bombay on 10th January, 1922, and were temporarily kept at the Victoria Gardens, where the rhinoceros was photographed, as shown by Ellison (1922: 691 and plate). It died of sarcoma of heart and lungs (Scott 1927).

*M* 1924 December 13 – 1941 November 21 †  
'Felix'

Gift from the King of Nepal. It was transported from Calcutta on the SS. *Merkara*. It was less than half-grown on arrival. The animal became extremely savage. In the summer of 1939 it was transferred from the Elephant House to the Tapir House. It died of tuberculosis (Hamerton 1943: 127). The skull is preserved at the Natural History Museum, London, No. 1950.10.18.4 (Groves 1982: 253).

*M* 1933 April 29 – 1935 June 6  
'Hush'

Gift from King of Nepal to the British King, George V. It was about one year old on arrival. A photograph of this or the following rhinoceros, with a goat and a keeper, was published by Keeling (1995b: 70). To Whipsnade.

*F* 1933 July 3 – 1938 November 18 †  
'Hash'

Caught in Nepal. Gift from King of Nepal to the British King, George V. It went to Whipsnade on 6th June, 1935, but returned on 16th November, 1938, after it had been badly injured by the male Hush. It was found that the pelvis was broken, and the animal had to be euthanized (Hamerton 1939: 290).

#### 5. Jamrach (animal dealer)

Johann Christian Carl Jamrach (1815–1891), or Charles Jamrach, a German by birth but naturalized British, started an animal trading business in 1840, operating from Ratcliff Highway, now 180 St George Street (Blunt 1976: 52). He was probably assisted by his sons William and Albert E. Jamrach (names found

in Loisel 1912, III: 329). Many rhinos were imported from India to Europe by the Jamrach company, while several died before arrival. A list of animals imported by Jamrach is attempted here, but it is likely to be incomplete:

1850 London

1855 Two specimens advertized in Liverpool (see below)

1855 Vienna

1867 Two specimens died en route from Calcutta (see below)

1871 Berlin (traded back to Jamrach, destination unknown)

1872 Cologne

1872 Berlin (male and female)

1874 Berlin

1874 Died en route (see Jamrach 1875)

1875 Died in London, Rice

#### 1855

The female Indian rhinoceros exported to Vienna in 1856, was supposedly one of four rhinoceroses imported by Jamrach in 1855, as recorded by L.J. Fitzinger in the zoo's files (Rookmaaker and Reynolds 1985: 152 after Marvin Jones). There are no other records of rhinos arriving at zoos or travelling shows in 1855, and so their fate is unknown. It could be surmised that two of them died on the way, as Jamrach had two skulls in 1867 (see next entry). However, Clin Keeling (in Rookmaaker and Reynolds 1985: 152) saw an advertisement in *The Daily Post* published in Liverpool on 11th June, 1855, in which a male and female rhinoceros from the wilds of Assam were offered for sale. They were to be sold at Lucas' Repository on 14th June, 1855. They were advertized again in Manchester Zoo in 1856 (qv). There is no clue as to their destination.

#### 1867

Buckland (1882: 217) saw two rhinoceros skulls at the Jamrach collection in January 1867. The animals had been shipped from Calcutta, but both had died at sea due to starvation between St. Helena and the UK. The story mentions only two rhinos, and it appears unlikely that others accompanied them. Unfortunately, the dates of transport were not mentioned.

*F* 1872

Jamrach received a female Indian rhinoceros in 1872 from Berlin Zoo, in exchange for a

pair delivered on 19th September, 1872. The fate of the animal is not recorded. Schlawe (1969: 23) noted that on 19th September, 1872, there were three Indian rhinos in Berlin for one day only, suggesting that Jamrach delivered the new pair and returned with the single female. The only other Indian rhinoceros known to be imported by Jamrach into Germany was the female shown in Cologne from 26th April, 1872. This could have been the animal transferred from Berlin, but which was still seen in Berlin later.

#### 1874

In April 1874, Jamrach's agents in Calcutta shipped two rhinoceroses to Europe, one of which later arrived at Berlin Zoo. The other specimen, "the largest of the two died during the voyage to England, and was cast into the sea" (Jamrach 1875).

#### 6. Rice (animal dealer)

##### F 1875

William Jamrach wrote to P.L. Sclater in London (reported by Sclater on 16th February, 1875) that he was bringing from Calcutta a rhinoceros obtained in the Bhootan Terai. Jamrach thought that it was a new species, but on arrival it was proclaimed to belong to *Rhinoceros unicornis*. The animal died in Mr. Rice's establishment (Sclater 1875). The hide was not preserved, while the skull went to the Museum of the Royal College of Surgeons, London (Sclater 1876a: 648-649). In the catalogue of that collection, Flower and Garson (1884: 416) list as No. 2127 the skeleton of a young female Indian rhinoceros, "from an animal which died in captivity in this country".

#### 7. Olympia

##### F 1898 - 1901 (?)

###### 'Queen Elizabeth'

The American circus owner, James Bailey, bought a three-year-old Indian rhinoceros at Olympia in London during the first month of 1898. He toured with it in several European countries, but the animal was no longer with him when he returned home in 1902 (see USA: Travelling menageries).

#### Los Angeles, CA, USA

##### Los Angeles Zoo

Thomas (1982) presented the history of rhinoceroses at Los Angeles Zoo. There is confusion about the Indian rhinos in Los Angeles in the studbook of the species. No. 47-KAZ 11 has approximately the same date of arrival as Rhadha (46) and Nepali's (16) date of death. From correspondence with Mike Dee from 1972, it is clear that Los Angeles only imported three Indian rhinos in the 1960s: the male Herman (35) and the females Nepali (16) and Rhadha (46). Therefore, 47-KAZ 11 is an incorrect entry which should be deleted.

##### M 1966 March 8 -

###### 'Herman'

35-ASSAM 7

Caught in Laokhawa, Assam (dealer George Munro, Calcutta). It was about one year old on arrival.

##### F 1968 May 28 - 1971 January 22 †

###### 'Nepali II'

16-KAZ 7

Came from Hamburg-Stellingen. Date of arrival stated as 25th May, 1968, in the studbook (Basel Zoo 1988). On New Year's day 1971, it was attacked by cage-mate, Herman, and died of its injuries (Mike Dee, in litt. 1972).

##### F 1969 November 28 - 1988 November 10 †

###### 'Rhadha'

46-ASSAM 8

From Gauhati. It was three years old on arrival (see Fig. 51).

##### F 1974 November 22 -

###### 'Randa'

45-BASEL 10

From Brownsville.

##### F 1982 February 16 - 1985 June 18

###### 'Meetha'

111-LOSAN 1

Born to Herman (35) and Rhadha (46), gestation 496 days. Baby was born at 5:39 am. A picture was published by Crotty (1982). To San Diego Wild Animal Park.

##### F 1982 August 9 - 1982 August 9 †

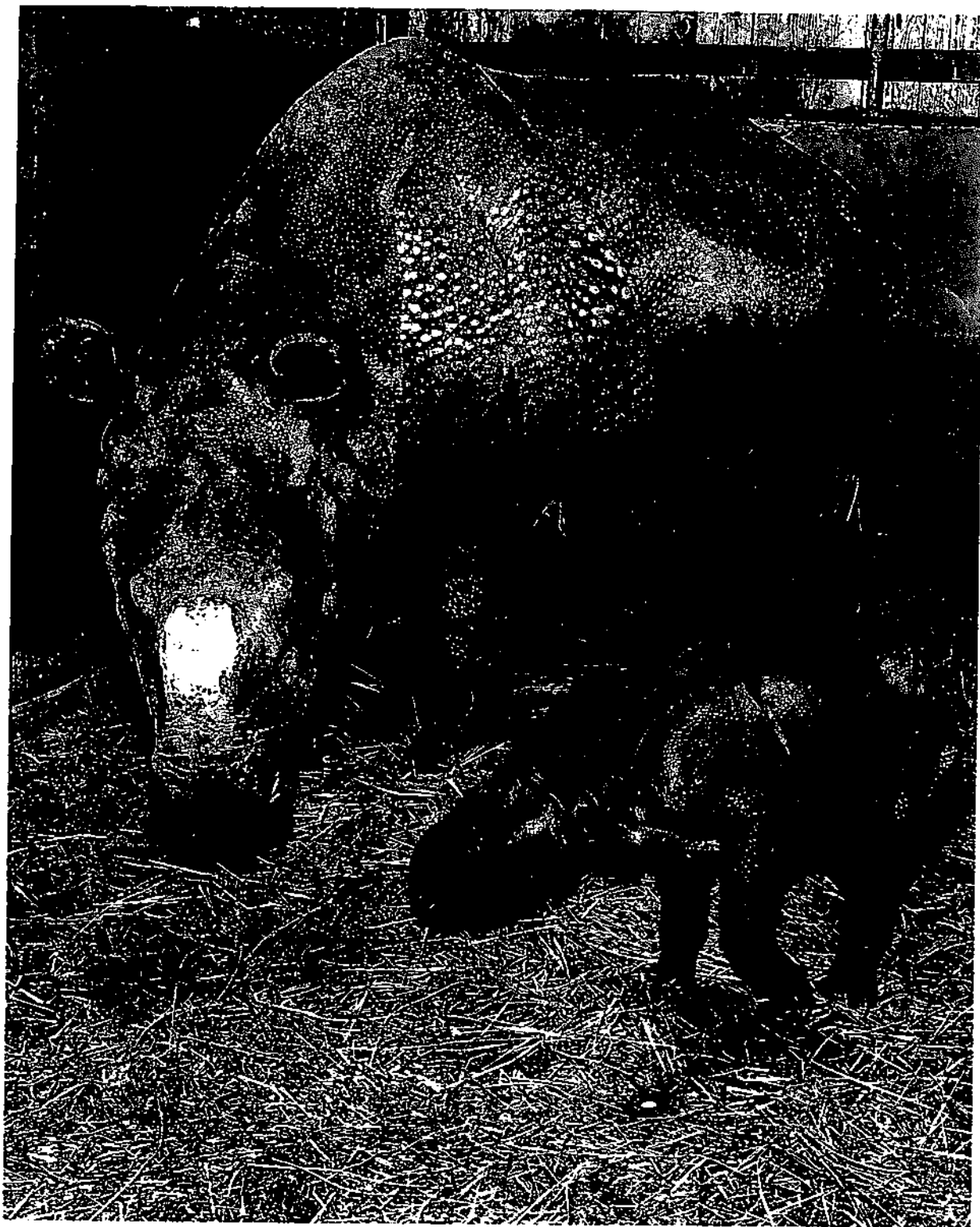
120-LOSAN 2

Stillborn to Herman (35) and Randa (45). Gestation 490 days, weight 56.7 kg.

##### M 1983 December 16 - 1983 December 16 †

121-LOSAN 3

Aborted calf to Herman (35) and Randa (45).



*Fig. 51. Los Angeles, female 'Radha' with calf 'Meetha' on 18th February 1982.*

*M* 1985 August 11 – 1990 November 13  
 'Chandra' 125-LOSAN 4  
 Born to Herman (35) and Rhadha (46). To  
 Oklahoma.

*F* 1986 October 10 – 1986 October 10 †  
 133-LOSAN 5  
 Stillborn to Herman (35) and Randa (45).

*F* 1990 November 17 –  
 'Terai' 89-BER W 3  
 From Oklahoma.

### Lucknow, Uttar Pradesh, India

#### 1. Royal Menagerie of the King of Oudh

From 1732 to 1856, Lucknow was the capital of the province ruled by the Nawabs of Oudh (from 1814, the Kings of Oudh). In 1856, Oudh was annexed to the British Empire as a Chief Commissionership. There are several reports of a large number of rhinoceroses kept in the Royal menagerie, although exact details are elusive.

In 1790, Nawab Asaf-Ud-Daula (d. 1798) presented a rhinoceros to Mr. Henry Dundas, according to the history told at the time of its arrival at the Exeter Change, London.

Heber (1827, II: 58) visited Lucknow in 1825 and saw five or six very large rhinoceroses. He noted that "they seem to propagate in captivity without reluctance". Unfortunately, he did not elaborate.

Knighton (1833/34) served Nasir Ud-Din Haidar (d. 1837), the King of Oudh, in the years before the publication of his book. He reported that the Royal Menagerie situated in the 'open park around Chaungunge' [in Lucknow] had, throughout the years, contained about 15 to 20 rhinos. These were sometimes used in animal fights, in which rhinos were made to battle against elephants, tigers or other rhinos. Apparently, the animals in the menagerie were sold at the time of annexation in 1856, since Blyth (1875: x) reported that, at that time, two rhinoceroses were sold to people in Calcutta (see Calcutta, Barrackpore Park). Loisel (1912, III: 20 note) mentioned that, in 1857, the King of Oudh still had tigers and buffalos, but a rhinoceros was not listed. The King was imprisoned in Calcutta and continued to have a menagerie there (see *R. sondaicus* – Calcutta).

#### 2. Zoological Gardens

*F* 1944 February 2 – 1973 April 2 †  
 'Rosy' 105-NEPAL 10  
 Died of dislocated hip joint.

*M* 1959 March 30 – 1979 May 6 †  
 'Jai Singh' 90-ASSAM 14  
 Died due to injuries.

*M* 1979 October 20 – 1980 January 18 †  
 'Sanjoy' 91-ASSAM 15  
 From Gauhati. Died of sand colic.

*F* 1979 October 20 – (?)  
 92-ASSAM 16

From Gauhati. In the records provided by Gauhati Zoo, the animal is recorded as a male, probably erroneously. According to Basel Zoo (1995), no rhinos were present in Lucknow in 1987, nor is it listed in the Indian studbook (Kanpur Zoo, 1993) with all other specimens known in 1993. It may have died before that time.

### Madras, Tamil Nadu, India

#### Zoological Gardens

Madras Zoo apparently closed in the late 1980s, after which a more modern safari park-type collection was opened in a suburb of Madras Town.

*M* 1953 June 9 – 1980 June 15 †  
 'Kushal' 75-ASSAM 12  
 About eight years old on arrival. It was alive in January 1978 when I saw it in Madras. The



Fig. 52. Indian rhinoceros male in Madras, January 1978.

hide is preserved at the Government Museum, Egmore, Madras (see Fig. 52).

*M* 1985 April 17 –  
'Ramu'

218-KAZ 32

From Gauhati. This animal is recorded in the list of animals leaving Gauhati, but its stay in Madras has not been confirmed. It is not listed in the Indian studbook (Kanpur Zoo, 1993).

## Madrid, Spain

### Collection of King Philip II

1583 – ca. 1586 †

#### *The Madrid Rhinoceros*

Transferred from Lisbon, together with the court of the Spanish King Philip II. In Madrid it was seen in October 1583 and again in April 1584 (Clarke 1986: 28). It is likely that the animal died around 1586.

## Magdeburg, Germany

### *Zoologischer Garten*

*M* 1985 (?) – 1985 August 27

'Katgin'

117-STUTT 6

According to the studbook, this male, born in Stuttgart, was exhibited in Magdeburg before being sent to Yokohama on 27 August, 1985.

## Manchester, UK

### 1. Zoological Garden

This zoo existed from 1838 to 1842.

*F* 1840 – 1842 November 25

In 1840, the Manchester Zoological Garden published a list of specimens, which included a female Indian rhinoceros (Rookmaaker and Reynolds 1985: 133 after C. Keeling, from a guidebook in the Manchester Reference Library). On 23rd-25th November, 1842, the animals from Manchester Zoo were auctioned. The sale included a rhinoceros, which was bought by Wombwell (see UK, Wombwell) for 265 guineas, according to the *Manchester & Salford Advertiser* of 26th November, 1842 (Barnaby 1995).



Fig. 53. *Rhinoceros sondaicus* skull at Manchester Museum, alleged to have been from a captive specimen.

### 2. Belle Vue Zoological Gardens

The older records about Belle Vue Zoo, which opened its gates in 1836, pose a few questions. One important enigma to be settled is the provenance of a *Rhinoceros sondaicus* skull in Manchester Museum, first recorded and described by Cave (1985). The skull belonged to "an old male animal which had lived long in captivity". The age and sex are obvious from the skull, while the captive life of the animal is "reflected in the presence of osteoarthritis of the temporo-mandibular joints and of generalized parodontal disease in the upper and lower jaws" (Cave 1985: 528). Unfortunately, there are no data available on the skull or its history in the museum files. It is known that it was on permanent exhibition in the museum from 1914 onwards, and Cave suggested that it arrived at the museum between 1890 and 1910. He also suggested that the animal might have come from Belle Vue Zoo. Keeling (1994) also examined and photographed the skull (see Fig. 53).

There were probably at least two (and maybe four) rhinos in Belle Vue prior to 1910 (see below). The record about the rhinoceros in the 1870s is puzzling, and it would seem hasty to assume that it had a long captive life. The male from 1876-1904 would clearly fit the bill much better. The hesitation to ascribe the skull to this specimen, exhibited as *R. unicornis*, is due to the fact that S.S. Flower saw it while it was alive (in 1906 he saw the skeleton, but he referred to an earlier visit). Flower had visited many zoos around the world and, while he was not a rhinoceros expert, he would have noticed if there was a clear misidentification. Rookmaaker and Keeling (1991), hesitatingly,

and lacking a better alternative, assumed that the skull belonged to the first specimen. I do not completely agree with Keeling's suggestion that the animal's tame nature would make it a Javan rhinoceros; there have also been quite a number of tame Indian rhinoceroses.

#### 1856

An advertisement in the press for Belle Vue dated 1856 listed a pair of rhinoceroses (Keeling 1993: 36, after Robert Nicholls). I imagine that these might be the same as the pair advertised for sale in Liverpool in June 1855 (see London, Jamrach). Possibly, they had been temporarily deposited at Belle Vue gardens. No further details are available.

#### (?) 1870s

Peel (1903: 207) contrasted the male that lived from 1876 to 1904 with "the preceding rhinoceros which was allowed to roam the grounds". This is an enigmatic statement. No rhinoceros has definitely been recorded in Belle Vue before 1876. Peel's sentence suggests that his 'preceding' rhinoceros died or left the zoo before the arrival of the 1876 male. Jennison (1928: 149) also compares the temperament of two rhinos in Manchester: "The earliest rhino at Belle Vue had the run of the gardens, and did not resent being chased by a boat from his wallow in the lake when he was required for exhibition. He frightened no one, and only annoyed the laundry-maids by mumbling the clean linen on the lines. His successor was very wild, and in the mad fury of youth would charge the walls until the blood flowed."

#### M 1876 June 20 - 1904 †

Dates recorded by Flower (1931: 203). Flower (1906: 26) mentioned its death: "but I saw his skin, stuffed and mounted". In 1911, the first cage of the Camel House still contained the skeleton of this rhinoceros (Keeling 1983: 20-21).

#### M 1907 May - 1917 †

Imported from Nepal by Hagenbeck, together with three other males (Flower 1908: 32). Manchester's specimen was "almost the smallest, thirty inches high ... it was picked from the group as the most lively" (Jennison 1928: 148). It was still alive in 1911 (Keeling 1983: 34), but apparently died in 1917 as a result of swallowing a tennis ball, as suggested by the

daughter of the zoo's veterinarian (Keeling, in litt. 1993).

#### Marseilles, France

##### Jardin Zoologique

This small zoo was founded by Dr. Suguet in 1830. It remained a private institution until 1870, when it was nationalized (Loisel 1912, III: 113).

#### 1861

This animal had previously lived for 11 years in a travelling menagerie (name unknown) touring throughout Europe. As it had been kept in a narrow cage, it could not move properly (Sacc. 1861: 37). Length of stay unknown (Noll 1873: 51), but it must have died before 1870, as no rhinos were recorded at that time (Loisel 1912, III: 113).

#### Miami, FL, USA

##### Crandon Park Zoo (until 1981) Miami Metro Zoo

#### M 1970 April 23 -

'Mohan'

49-NEPAL 3

Caught in Chitwan National Park, Nepal, by Ralph S. Scott (see Scott 1971). It was about one year old on arrival.

#### F 1970 June 12 -

'Shanti'

50-NEPAL 4

Caught in Chitwan National Park, Nepal, by R.S. Scott (see Scott 1971). It was in Philadelphia on breeding loan from 10th April, 1987, to 22nd November, 1988, and in New York from then until 27th March, 1990.

#### M 1987 April 6 -

'Akbar'

126-PHIL 2

From Philadelphia.

#### Milan, Italy

Gee (1952), writing about the capture of a female Indian rhinoceros destined for Whipsnade, stated that the Forestry Department had first caught six males. One of those went to Basel, another to Milan. Basel's first male arrived in



May 1951, so the Milan animal was perhaps in fact the male to reach Rome in September 1951.

# **Milwaukee, WN, USA**

## *Milwaukee County Zoological Park*

*M* 1959 July 20 – 1987 February 6 †  
 'Rudra' 14-BASEL 1  
 From Basel. Died of weight loss and foot lesions. Schaffer *et al.* (1990) subjected it to a study on semen collection.

*F* 1959 July 20 – 1975 June 24 †  
 'Mohinja' 15-WHIP 1  
 From Whipsnade.

*F* 1967 January 30 – 1967 January 30 †  
 52-MILW 1  
 Stillborn to Rudra (14) and Mohinja (15).

*M* 1991 October 29 –  
 'Assam' 87-BASEL 16  
 From New York Bronx.

# **Moscow, Russia**

## *Moscovskii Zoologicheskii Park*

1865/1866

Its presence was recorded either in 1865 (Reynolds 1961a: 23) or in 1866 (Rookmaaker and Reynolds 1985: 152). Count Alexis Bobrensky of Moscow sent information to Edward Blyth (1868/69) that the rhinoceros had shed its horn.

# **Munich, Germany**

## *Tierpark Hellabrunn*

*F* 1990 April 15 –  
 'Rapti' 193-NEPAL 20  
 Imported from Nepal.

*M* 1990 June 12 –  
 'Nikolaus' 152-STUTT 9  
 From Stuttgart.

*F* 1990 July 11 –  
 'Nasi' 148-BASEL 21  
 From Basel.

# **Mysore, Karnataka, India**

## *Sri Chamarajendra Zoological Gardens*

*F* 1956 July 3 – died before 1992 †  
 'Ranni' 11-ASSAM 6  
 Caught in Assam. Krishne Gowda (1975, figs. 1,2) shows two photographs of the animal. Valandikar and Raju (1996) mentioned that, in 1992, Mysore Zoo had only one Indian rhino, which must have been Muniya (61) below. This animal is also absent from the Indian stud-book (Kanpur Zoo, 1993) (see Fig. 55).

*M* 1965 April 29 – 1979 April 30 †  
 'Kasi' 1-ASSAM 1  
 Born ca. 1941 (see Fig. 54).

*M* 1968 February 13 – 1971 April 24  
 'Mysore' 42-MYSO 1  
 Born to Kasi (1) and Ranni (11), gestation 486

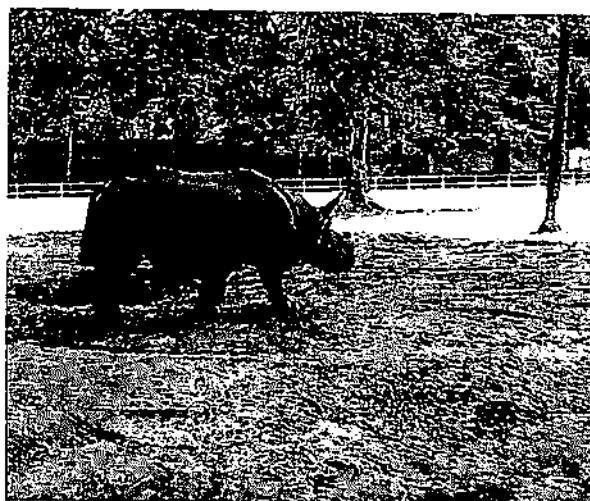


Fig. 54. Male Indian rhinoceros 'Kasi' in Mysore, August 1972.



Fig. 55. Mysore's female 'Ranni' with calf 'Mysore' in August 1972.

days. Krishne Gowda (1975, figs. 1,2) published photographs. To Berlin Tierpark.

*M* 1971 April 16 – 1975 August 28

'Vinu' 53-MYSO 2

Born to Kasi (1) and Ranni (11), gestation 484 days. To Gelsenkirchen.

*F* 1975 July 19 – 1979 April 27

'Indira' 79-MYSO 3

Born to Kasi (1) and Ranni (11). To Toronto.

*M* 1985 January 29 –

'Muniya' 61-KAZ 13

From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-26. Venugopal *et al.* (1994) studied its activity pattern.

*F* 1990 – (?)

From Vadodara (Anonymous 1990). It seems that the animal was no longer present in 1992 (Valandikar and Raju 1996, Kanpur Zoo 1993).

## Nagoya, Japan

### Higashiyama Zoo

*M* 1974 October 2 –

'Samber' or 'Krishna' 57-GAUH 3

From Gauhati.

*F* 1974 October 2 –

'Jaya' 64-ASSAM 10

From Gauhati.

*M* 1991 December 1 –

'Nandi' 181-BASEL 23

From Basel.

*F* 1991 December 1 –

'Nilgiri' 183-BASEL 24

From Basel.

## New York, NY, USA

### 1. Bronx Zoo

Pitman (1991: 2) published an undated photograph of rhinos at the Bronx Zoo.

*M* 1907 July 23 – 1918 August 27 †

'Mogul'

Caught in Nepal, imported by Hagenbeck. A

photograph was published by Hornaday (1918: 95). The animal suffered from an eye complaint and was operated on in 1907 and 1909, which together cost about \$10,000 (Blaszkiewicz 1980: 72). An autopsy was performed in 1918 (Anon. 1918). Hide and skeleton are preserved at the American Museum of Natural History, New York.

*F* 1923 May 24 – 1962 January 25 †

'Bessie'

Captured in Nepal by Frank Buck. The story of the capture and transport to America is told by Buck (1930). Hediger (1970, fig.1) illustrated a rhinoceros with a small second hornlet in the Bronx Zoo in 1953. Other photographs can be found in Anon. (1924), Crandall (1966: 175) and Lang (1961, fig. 3). Reynolds (1962b) reported its death.

*F* 1975 January 30 –

'Pinky' 66-KAZ 14

From Gauhati. It was just over two years old on arrival.

*F* 1975 January 30 –

'Radha' 67-KAZ 15

From Gauhati.

*M* 1975 October 30 – 1989 June 15

'Patrick' 69-WASH 1

From Washington. Dixon and MacNamara (1981) studied the behavior of the rhinos in New York in the 1970s. To Toronto.

*M* 1981 April 2 – 1983 December 16

'Tarun' 19-INDIA B

From Washington. To Oklahoma.

*M* 1982 October 14 – 1991 October 29

'Assam' 87-BASEL 16

From Philadelphia. To Milwaukee.

*M* 1983 December 23 –

'Heiner' 83-BER W 2

From Oklahoma.

*F* 1986 April 9 –

'Pinky' 131-NEYO 1

Born to Heiner (83) and Pinky (66).

*F* 1988 November 22 – 1990 March 27

'Shanti' 50-NEPAL 4

From Philadelphia. To Miami.

*F* 1989 September 5 – 1993 November 5  
'Mary' 161-OKLA 1  
Born to Heiner (83) and Pinky (66). To Oklahoma.

*M* 1990 May 31 –  
53-MYSO 2  
From Toronto.

*M* 1994 March 22 – 1994 March 22 †  
221-NEYO 3  
Stillborn to Heiner (83) and Pinky (66).

## 2. Central Park Zoo

This zoo opened in 1864.

1871 March 16  
Deposited, probably by P.T. Barnum, who loaned an animal to be exhibited for 80 days.

1872 January  
Deposited for permanent display. It probably was a circus rhinoceros.

1874 August 24 – 1874 October 28 †  
No further particulars (John Edwards, information from Reports of the Central Park Menagerie).

1876 December 11 – ?  
No further particulars (John Edwards, information from Reports of the Central Park Menagerie).

## Nuremberg, Germany

*Tiergarten der Stadt Nürnberg*

*M* 1989 December –  
'Noel' 135-STUTT 8  
From Stuttgart.

*F* 1993 July 8 –  
'Purana' 195-BASEL 23  
From Basel.

## Oklahoma City, OK, USA

*Oklahoma City Zoo*

*M* 1981 July 10 – 1983 December 23  
'Heiner' 83-BER W 2  
From Berlin Zoo. To New York Bronx.

*F* 1981 July 10 – 1990 November 17  
'Terai' 89-BER W 3  
From Berlin Zoo. To Los Angeles.

*M* 1983 December 16 – 1989 September 5 †  
'Tarun' 19-INDIA B  
From New York Bronx. Died of gastritis.

*M* 1990 November 13 –  
'Chandra' 125-LOSAN 4  
From Los Angeles.

*F* 1993 November 5 –  
'Mary' 161-OKLA 1  
From New York Bronx.

## Omaha, NA, USA

*Henry Doorly Zoo*

*M* 1966 September 9 – 1975 February 24 †  
'Tiny' 63-NEPAL 5  
From Portland. The zoo records do not state its temporary exhibition in Portland. It was caught in Nepal, after the mother had been killed by poachers in 1962. The remains are kept at the N.E. State Museum.

*F* 1970 January – 1970 January 31 †  
'Goiangi' 48-ASSAM 9  
From Gauhati. This immature female never arrived at the zoo, but died during transport from India to the USA.

## Pakistan

*Indus Valley civilization, ca. 3000 BC*

In the excavations at Mohenjo Daro (Indus Valley, Pakistan), some seals and pottery objects were found, dating from around 3000 BC, showing a rhinoceros. In some cases, the animal is depicted standing in front of a manger. This may indicate captive life, but possibly there may have been another significance for this kind of representation (references in Rookmaaker 1984b: 556) (see Fig. 56).

## Paris, France

1. *Royal Menagerie at Versailles*

*M* 1770 September 11 – 1793 September 23 †  
Gift to King Louis XV from Mr. Chevalier,



Fig. 56. Seal with rhinoceros from Mohenjo Daro, Pakistan, 3rd millennium B.C.

Governor of the French trading post at Chandernagor, near Calcutta. It left Calcutta on board the *Duc de Praslin* on 22nd December, 1769, and arrived in Lorient, France on 11th June, 1770. It was transported by road from the harbor to Versailles. The total cost of its transport amounted to 5388 livres, 10 sous, 10 deniers (Lacroix 1977: 13-19). It was about two to three years old on arrival (Buffon 1778: 133). It was drawn by Petrus Camper on 28th July, 1777 (Rookmaaker 1983c, fig.3; see Fig. 57) and described in 1779 by Sander (1779). It lived in an enclosure 23.4 x 19.5 m with a small pool. The animal survived the French Revolution of 1789. Cuvier (1804: 5, pl.33) published a plate engraved by Simon-Charles Miger after a drawing by Nicolas Maréchal. He mentioned that the animal killed two young people who jumped into its enclosure, and that it drowned in the pool in July 1793. This date seems to be incorrect, since a report about its dissection stated its death as being in September 1793. Schinz (1845: 347) mentioned the same story about the death of two people, but with a probably erroneous date, 1800. It was dissected in Paris by Felix Vicq d'Azyr. At that time, 38 vélins were made showing details of its internal organs, none of which were published at the time (Rookmaaker 1983c: 311-315, Saban 1983). The hide and skeleton are preserved at the Muséum Na-

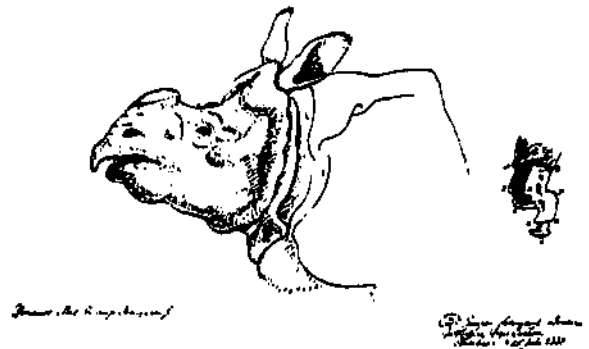


Fig. 57. Petrus Camper's sketch of the male Indian rhinoceros at Versailles, dated 28th July 1777.

tional d'Histoire Naturelle in Paris (see Fig. 58).

Loisel (1912, II: 143) said that this was a two-horned rhinoceros: "En 1770, la ménagerie de Versailles reçut un rhinocéros bicorné que M. Bertin, ministre d'État, avait fait venir du Cap [de Bonne-Espérance]." ("In 1770, the menagerie of Versailles received a double-horned rhinoceros which Mr. Bertin, minister of state, had sent from the Cape of Good Hope".) The same sentence can be found in Loisel's source, the journal kept by the Duc de Croij (1906: 486). The latter stated that the animal had one horn, but that it was supposed to have another one on the shoulders: "il sera curieux de voir si elle pousse!" ("it will be curious to see if it will grow!"). I feel sure that this animal was not double-horned, and that it did not originate from the Cape of Good Hope. Lacroix (1977) quoted from the archival log-book of 22 December, 1769, that in the afternoon of that day the rhinoceros was taken on board at a place near Calcutta, India. The drawing by Petrus Camper of 1777 and the descriptions by Buffon also help to remove any doubt that it was an Indian rhinoceros.

#### 1788 - (?)

Loisel (1912, II: 151) asserts that the Menagerie of Versailles had two rhinoceroses simultaneously, the previous animal (which he called double-horned) and a single-horned rhinoceros which was brought from India in 1787 or 1788. In the next sentence, Loisel implies that the rhinoceros came together with other animals as a donation from the Indian ruler Tippoo-Saib. Tipu Sultan (1750-1799) was the ruler of Mysore, India, from 1781, who fought bitterly against the French and English in the second Mysore War. In August 1788, three ambassa-

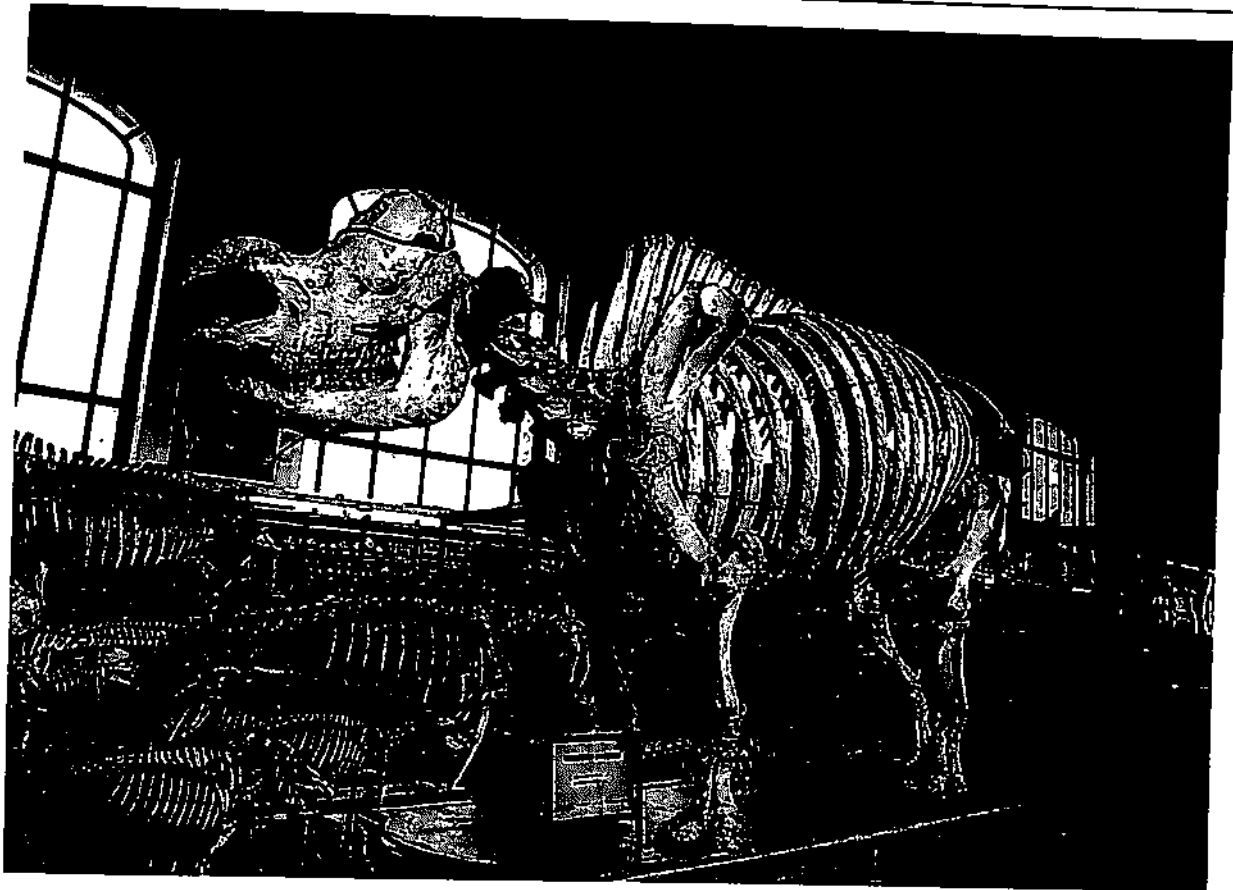


Fig. 58. Mounted skeleton of the Versailles rhinoceros at the Galerie d'Anatomie Comparée of the Natural History Museum in Paris.

dors sent to France by Tipu Sultan were welcomed at the Palace in Versailles. It would be possible that a rhinoceros and other animals were donated at that time. I have been unable to find any collaboration of Loisel's rather recent statement, and he does not appear to have provided any references.

## 2. Jardin des Plantes

1850 March 22 – 1854 January 29 †

These dates were found in the zoo's ledgers by Marvin Jones. However, Chenu and Desmarest (1858: 4) recorded the stay as being from May 1850 to 27th December, 1854. Rookmaaker and Reynolds (1985: 132) suggested that this animal had first travelled with Huguët's Menagerie throughout Europe from 1840 onwards (see Europe: Huguët). This may be incorrect. A print of a 'young rhinoceros' in the Muséum National d'Histoire Naturelle of Paris was published in the *Magasin Pittoresque*, 1851, p. 149 (see Fig. 59). It has a short horn, and seems to be much younger than Huguët's rhinoceros depicted in Stutt-

gart in 1847 in Krauss (1851). Chenu and Desmarest never actually made any connection with a travelling menagerie. It now appears that the Paris rhinoceros was a different specimen.

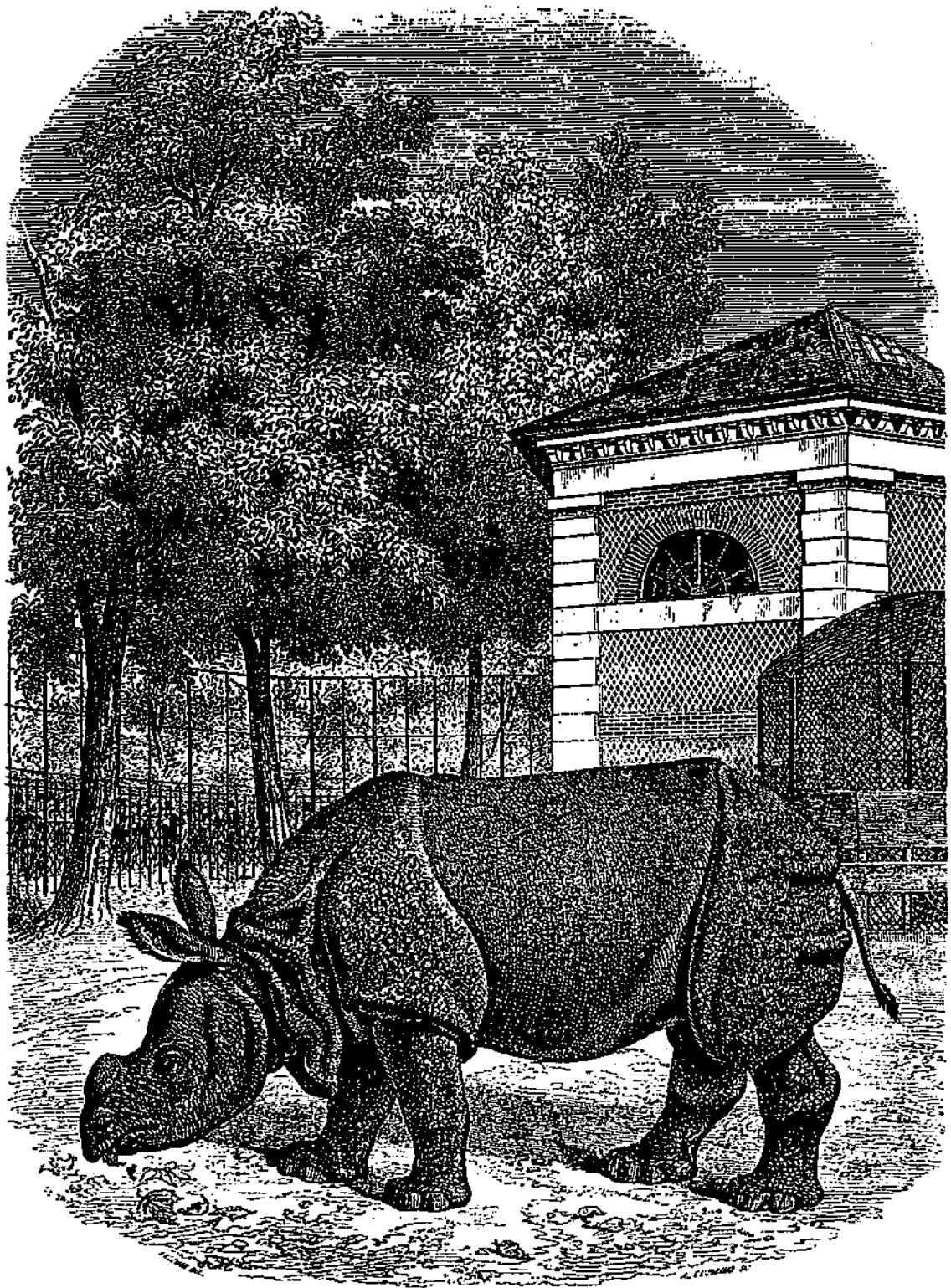
F 1865 June 20 – 1874 September 19 †

From London Zoo, traded for the African elephant 'Jumbo'. This specimen is shown on a drawing by Auguste Lançon (1836-1887), kept in the library at the Museum National d'Histoire Naturelle in Paris (Vezin 1990: 92). After its death, it was dissected by Gervais and Gervais (1875) (see Fig. 60).

## 3. Parc Zoologique, Vincennes

M 1934 April 7 – 1960 April 4 †

Caught in Nepal, brought by Jean Delacour. Lang (1961: 371) said that it arrived in 1933. Pictured by Mohr (1957, fig. 4) with abraded horn.



*Fig. 59. Indian rhinoceros in Paris, drawn by Freeman for the Magasin Pittoresque of 1851.*



Fig. 60. Stereographic postcard probably showing the 1865-1874 female in Paris.

*F* 1963 May 25 – 1967 April 3 †  
'Geetah'

From Gauhati, about five years old on arrival. It cost 50,000 francs. A photograph can be seen in Heckly (1963).

*M* 1964 September 29 – 1976 February 26 †  
'Khunlai' 27-BASEL 4  
From Basel.

#### Patna, Bihar, India

*Sanjay Gandhi Biological Park*

*M* 1979 May 28 –  
'Kancha' 156-ASSAM 20  
From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-16.

*F* 1979 May 28 –  
'Kanchhi' 155-ASSAM 19  
From Gauhati. There is a photograph of the male chasing the female in courtship in *Zoo's Print*, vol. 5 (8): 2, 1990. Indian studbook (Kanpur Zoo, 1993) No. NR-11.

*M* 1982 March 28 –  
'Raju' 157-INDIA K  
Found and captured in Champaran Forest, a remarkable locality. Champaran is a district in North-East Bihar near Raxaul. There are no reports of a resident rhinoceros population in the region. It may have been a stray from the bordering areas of southern Nepal. Indian studbook (Kanpur Zoo, 1993) No. NR-22.

*F* 1986 October 25 – 1986 October 25 †  
158-PATNA 1  
Stillborn to Raju (157) and Kanchhi (155), reported by Jha *et al.* (1987).

*F* 1988 July 8 –  
'Hartali' 159-PATNA 2  
Born to Raju (157) and Kanchhi (155), described by Mishra (1994) with photographs. Indian studbook (Kanpur Zoo, 1993) No. NR-32.

*F* 1991 July 6 –  
'Chhotaki' 203-PATNA 3  
Born to Raju (157) and Kanchhi (155). Indian studbook (Kanpur Zoo, 1993) No. NR-41. The birth occurred after a gestation of 466 days and was described by Mishra and Jha (1993).

#### Philadelphia, PA, USA

*Zoological Gardens*

*M* 1875 March 13 – 1901 January 3 †  
'Pete' 231-INDIA O  
Purchased from John O'Brien, who had exhibited the animal at P.T. Barnum's World Fair Circus, which O'Brien leased from Barnum. O'Brien had his base in Frankford, Pennsylvania, now part of Philadelphia town. Dates from Flower (1931: 202). The hide was mounted and preserved at the Academy of Natural Sciences, Philadelphia (Ulmer 1959: 6).

*F* 1923 May 24 – 1943 April 14 †  
'Peggy' 232-INDIA P  
It was caught in Nepal by Frank Buck and arrived together with the female in New York, as told by Buck (1930). It was purchased for \$8000 (Ulmer 1941). On arrival it was two years old and weighed 640 lbs.

*F* 1953 June 17 – 1976 December 6  
'Kanaklota' 9-ASSAM 4  
Caught in Kaziranga (dealer Peter Ryhiner), about three years old on arrival (Ulmer 1956). To San Diego Wild Animal Park.

*M* 1955 September 14 – 1996 January 7 †  
'Kanakbala' or 'Billy' 10-ASSAM 5  
Caught in Kaziranga (dealer Peter Ryhiner) (Anonymous 1955, and Ulmer 1956). A photograph of the male and female (9) can be found in Ulmer (1958: 6).

*M* 1979 November 7 – 1982 October 14  
'Assam' 87-BASEL 16  
From Basel. To New York Bronx.

*F* 1979 November 7 –  
'Xavira' 80-BASEL 14  
From Basel.

*F* 1984 February 25 – 1984 February 26 †  
118-PHIL 1  
Born to Billy (10) and Xavira (80). The animal weighed 56.25 kg at birth. It did not survive due to bacterial encephalitis.

*M* 1985 November 3 – 1987 April 6  
'Akbar' = 'BJ' (= Billy Jr.) 126-PHIL 2  
Born to Billy (10) and Xavira (80). To Miami.

*F* 1987 April 10 – 1988 November 22  
'Shanti' 50-NEPAL 4  
From Miami. To New York Bronx.

*M* 1988 August 14 – 1989 October 24  
'Jimmy' 147-PHIL 3  
Born to Billy (10) and Xavira (80). To Cincinnati.

*M* 1991 July 24 – 1992 July 21  
'Dhaulagiri' 187-PHIL 4  
Born to Billy (10) and Xavira (80). To Buffalo.

*F* 1994 May 10 – 1994 October 20  
'Mechi' 138-NEPAL 15  
From Washington, returned there after a short stay.

*F* 1994 October 6 –  
'Penny' 223-PHIL 5  
Born to Billy (10) and Xavira (80).

## Portland, OR, USA

### Portland Zoological Gardens

*M* 1964 May 3 – 1966 September 9  
'KAllen' 63-NEPAL 5  
Imported from Nepal by Morgan Berry. To Omaha.

## Pune, Maharashtra, India

### Royal Menagerie of Mudarao Narrian Peshwa

*M* 1790 November  
There is a drawing commissioned by Sir Charles Warre Malet, Resident in Poona from 1786 to 1796, by the local artist Gangaram

Chintaman Tambat. Malet added an inscription to the illustration of an Indian rhinoceros: "This drawing and wax figure [not known] of a Rhinoceros belonging to Mudarao Narrian Peshwa was taken from the life with great Fidelity at Poona in November 1790 by Gangaram Chintaman Tambat, the Age of the Rhinoceros was supposed to be about 25 years. ... Poona, 28th October 1790. CWM." The drawing is described and illustrated in a sales catalogue from Hobhouse Ltd., London, "Indian painting during the British Period: Tuesday, 9th September – Saturday, 27th September 1986."

## Rome, Italy

### Giardino Zoologico

*M* 1951 September 5 – 1983 February 28 †  
'Tomy' 6-ASSAM 2  
Caught in Kaziranga (by dealer Molinar). Picture from 1977 in Blaszkiewicz (1980: 101, fig. 5). Died of pulmonary emphysema, peritoneal pouring with hepatic adhesion.

## Rotterdam, The Netherlands

### Zoo Blijdorp

*M* 1983 April 13 – 1990 May 29  
'Nadir' 109-STUTT 5  
From Stuttgart. To Singapore.

*M* 1990 October 9 –  
134-ANTW 3  
From Antwerp.

*F* 1993 June 16 –  
'Namaste' 185-STUTT 10  
From Stuttgart.

## San Diego, CA, USA

### 1. San Diego Zoo

Dolan *et al.* (1990) reviewed the history of the rhinoceroses kept in San Diego.

*M* 1963 October 12 – 1972 April 29  
'Lasai' 26-BASEL 3  
From Basel. To San Diego Wild Animal Park.



*F* 1965 February 28 – 1972 April 26  
'Jaypuri' 29-GAUH 2  
From Gauhati (dealer George Munro). Picture in Dolan *et al.* (1990, fig. 7). To San Diego Wild Animal Park.

*M* 1982 November 4 – 1985 June 25  
'Pandu' 101-SDWAP 4  
From San Diego Wild Animal Park. To Washington.

*M* 1983 July 5 – 1983 October 27  
'Tezpur' 112-SDWAP 5  
From San Diego Wild Animal Park. To Seoul.

*M* 1983 November 30 – 1985 May 29  
'Rabha' 96-HYDE 2  
From San Diego Wild Animal Park and returned there.

*M* 1985 June 5 – 1988 September 17  
'Jorhat' 116-SDWAP 6  
From San Diego Wild Animal Park. To Tampa.

*M* 1988 November 21 – 1989 October 24  
'Gurkha' 124-SDWAP 7  
From San Diego Wild Animal Park. To Singapore.

*M* 1990 September 13 –  
'Joya' 146-SDWAP 10  
From San Diego Wild Animal Park.

## 2. San Diego Wild Animal Park

Joseph (1989), Dolan *et al.* (1990), Jones (1991) and Rieches (1993) reviewed the rhinoceros collection at this park with large enclosures.

*F* 1972 April 26 –  
'Jaypuri' 29-GAUH 2  
From San Diego.

*M* 1972 April 29 –  
'Lasai' 26-BASEL 3  
From San Diego.

*M* 1975 March 24 – 1975 March 25 †  
78-SDWAP 1  
Born to Lasai (26) and Jaypuri (29). Survived for only one day.

*M* 1976 October 18 – 1976 October 20 †  
'Maharajah' 85-SDWAP 2

Born to Lasai (26) and Jaypuri (29). Died of acute necrotic colitis, enteritis and peritonitis.

*F* 1976 December 7 – 1977 May 12 †  
'Kanakbala' 9-ASSAM 4  
From Philadelphia. Died due to uterine leiomyoma.

*F* 1978 March 19 –  
'Gaiinda' 99-SDWAP 3  
Born to Lasai (26) and Jaypuri (29). Picture in Dolan *et al.* (1990, fig. 7).

*M* 1980 August 8 – 1982 November 4  
'Pandu' 101-SDWAP 4  
Born to Lasai (26) and Jaypuri (29). Metzler (1981) presented several pictures of this baby. To San Diego.

*M* 1982 July 26 – 1983 July 5  
'Tezpur' 112-SDWAP 5  
Born to Lasai (26) and Gaiinda (99). To San Diego.

*M* 1983 May 1 – 1985 June 5  
'Jorhat' 116-SDWAP 6  
Born to Lasai (26) and Jaypuri (29). To San Diego.

*M* 1983 September 10 –  
'Rabha' (Srinivasa) 96-HYDE 2  
From Hyderabad, as a donation from William Grünerwald. Exhibited at San Diego Zoo from 30th November, 1983, to 29th May, 1985. The studbook number is not 106-Hyde 3, see discussion under Hyderabad.

*F* 1984 July 31 – 1984 July 31 †  
225-SDWAP 22  
Stillborn to Lasai (26) and Jaypuri (29).

*F* 1985 June 18 – 1985 July 3 †  
'Meetha' 111-LOSAN 1  
From Los Angeles. After being attacked by a male (Jaypuri 29), it was euthanized (Joseph 1989: 9).

*M* 1985 June 25 – 1988 November 21  
'Gurkha' 124-SDWAP 7  
Born to Lasai (26) and Gaiinda (99). To San Diego Zoo.

*F* 1986 January 18 –  
'Jumia' 130-SDWAP 8  
Born to Lasai (26) and Jaypuri (29).

*M* 1987 January 7 - 1987 January 7 †  
142-SDWAP -  
Calf was aborted; parents Lasai (26) and Jay-  
puri (29).

*F* 1987 May 28 -  
'Goalpara' 143-SDWAP 9  
Born to Lasai (26) and Gaiinda (99). Date of  
birth incorrectly recorded as 26th May in stud-  
book.

*M* 1988 May 22 - 1990 September 13  
'Joya' 146-SDWAP 10  
Born to Lasai (26) and Jaypuri (29). To San  
Diego.

*F* 1989 April 20 - 1989 April 20 †  
163-SDWAP 11  
Stillborn to Rabha (106) and Gaiinda (99).

*M* 1990 January 27 -  
'Jaunpur' 180-SDWAP 12  
Born to Lasai (26) and Jaypuri (29). Weight at  
birth 157 lbs.

*F* 1990 July 20 - 1994 October 9  
'Jhansi' 182-SDWAP 13  
Born to Rabha (96) and Jumia (130). Weight at  
birth 142 lbs. To Stuttgart.

*M* 1990 December 28 -  
'Gujrat' 184-SDWAP 14  
Born to Rabha (96) and Gaiinda (99).

*M* 1991 December 22 -  
'Gangtok' 188-SDWAP 15  
Born to Rabha (96) and Goalpara (143).

*M* 1992 February 26 - 1992 February 26 †  
197-SDWAP 16  
Stillborn to Rabha (96) and Jumia (130).

*F* 1992 July 21 - 1992 July 21 †  
198-SDWAP 17  
Stillborn to Lasai (26) and Jaypuri (29).

*M* 1992 November 6 - 1992 November 6 †  
200-SDWAP 18  
Stillborn to Rabha (26) and Gaiinda (99).

*F* 1993 September 7 -  
'Godavari' 209-SDWAP 19  
Born to Lasai (26) and Goalpara (143), men-  
tioned (with photograph) in *Zoonooz*, San Di-  
ego, 67 (1): 5, January 1994.

*M* 1994 March 13 -  
'Jaffna' 220-SDWAP 20  
Born to Rabha (96) and Jumia (130).

*M* 1994 November 26 -  
'Jafar' 224-SDWAP 21  
Born to Lasai (26) and Jaypuri (29). Picture in  
Anonymous (1995). Birth weight 147 lbs.

### San Francisco, CA, USA

#### Zoological Gardens

*M* 1987 June 22 - 1996 September 6 †  
'Chettra' 136-NEPAL 13  
Caught in Nepal. This male and the following  
female were a gift from King Birendra of Ne-  
pal, being presented by Prince Gayendra on  
22nd June, 1987.

*F* 1987 June 22 -  
'Shanti' 137-NEPAL 14  
Caught in Nepal (see previous entry).

### Sao Paulo, Brazil

#### Fundacao Parque Zoologico

*M* 1977 October 31 -  
'Nabob' 71-STUTT 2  
From Gelsenkirchen.

### Seoul, South Korea

#### Grand Park Zoo

*M* 1983 October 27 - 1990 †  
'Tezpur' 112-SDWAP 5  
From San Diego. Died of respiratory obstruc-  
tion due to acute indigestion and abdominal  
pressure.

### Singapore

#### Zoological Gardens

*M* 1989 October 26 -  
'Gurkha' 124-SDWAP 7  
From San Diego.

**M** 1990 May 7 –  
'Karnak' 164-NEPAL 18  
Caught in Chitwan National Park, Nepal. It was about seven months old on arrival.

**F** 1990 May 7 – 1991 November 2 †  
'Kanchan' 165-NEPAL 19  
Caught in Chitwan National Park, Nepal. It was about seven months old on arrival. It died of an impacted gut.

**M** 1990 May 29 – 1994 December 12  
'Nadir' 109-STUTT 5  
From Rotterdam. To Chiangmai.

**M** 1992 June 14 – 1992 July 8 †  
'Dvitya' 86-STUTT 3  
From Dvur Kralove. Died of an impacted gut. The skull is preserved at the education department of the zoo.

**M** 1994 January 8 – 1994 February 4 †  
'Pandur' 39-HAMB 2  
From Hamburg.

**F** 1994 January 8 –  
'Shita' 38-HAMB 1  
From Hamburg.

**M** 1995 April 28 –  
'Quilon' 206-BASEL 26  
From Basel.

## St Louis, MO, USA

### Saint Louis Zoo

**M** 1934 January 19 – 1961 December 31 †  
'Harry' 74-INDIA J  
Caught in Nepal through Frank Buck (Reynolds 1962b: 99). Buck showed the capture of this rhinoceros in his movie *Wild Cargo*, released in March 1934.

## St Petersburg, Russia

### Zoological Gardens

1882 – 1884/1885 (?)  
Present in 1882 (Lukin 1883: 280). Dates recorded by Dennis Levy (in Rookmaaker and Reynolds 1985: 152).

1911 – 1918 (?)

Dates recorded by Dennis Levy (in Rookmaaker and Reynolds 1985: 152).

## Stuttgart, Germany

### Wilhelma Zoo

**F** 1968 May 29 – 1992 †  
'Nanda' 34-BASEL 6  
From Basel. To Basel on breeding loan from 3rd June, 1969 to 9th June, 1970 and again from 19th July, 1973 to 24th October, 1973.

**M** 1969 June 3 –  
'Puri' 41-BASEL 8  
From Basel.

**F** 1971 July 16 – 1971 July 16 †  
54-STUTT 1  
Born to Basel's male Arjun (18) and Nanda (34), gestation 470 days, weight 55.7 kg. It was killed by the mother on the same day.

**M** 1974 December 5 – 1976 November 23  
'Nabob' 71-STUTT 2  
Born to Basel's male Arjun (18) and Nanda (34), gestation 479 days. Its photograph was published in *Int. Zoo News*, 21 (1), December 1974, p. 46. The name of the animal was the result of a public appeal bringing in over 2000 suggestions. It was 'baptized' with Stuttgart red wine by the former zoo director, Mr. Schöchle (*Int. Zoo News*, 22 (3), June 1975, pp 42-43 with photo). To Gelsenkirchen.

**M** 1977 September 21 – 1980 August 12  
'Dvityi' 86-STUTT 3  
Born to Puri (41) and Nanda (34), gestation 490 days. To Dvur Kralove.

**F** 1979 September 13 – 1981 July 22  
'Numa' 93-STUTT 4  
Born to Puri (41) and Nanda (34). To Dvur Kralove.

**M** 1981 August 30 – 1983 April 13  
'Nadir' 109-STUTT 5  
Born to Puri (41) and Nanda (34). To Rotterdam.

*M* 1983 July 12 – 1985

'Katgin' 117-STUTT 6  
Born to Puri (41) and Nanda (34). To Magdeburg (date not recorded in studbook), later to Yokohama.

*M* 1985 January 29 – 1987 December 9

'Bruno' 123-STUTT 7  
Born to Puri (41) and Nanda (34). To Cologne.

*M* 1986 December 24 – 1989 December

'Noel' 135-STUTT 8  
Born to Puri (41) and Nanda (34). To Nuremberg.

*M* 1988 November 27 – 1990 June 12

'Nikolaus' 152-STUTT 9  
Born to Puri (41) and Nanda (34). To Munich.

*F* 1991 February 11 – 1993 June 16

'Namaste' 185-STUTT 10  
Born to Puri (41) and Nanda (34). To Rotterdam.

*F* 1993 June 30 –

'Sani' 204-NEPAL 21  
Imported from Nepal.

*F* 1994 October 9 – 1994 October 11

'Jansi' 182-SDWAP 13  
From San Diego Wild Animal Park. To Berlin Tierpark.

#### Tampa, FL, USA

Lowry Park Zoo

*M* 1988 September 17 –

'Jorhat' 116-SDWAP 6  
From San Diego.

#### Tokyo, Japan

Tama Zoological Park

*M* 1958 November 10 – 1995 July 16 †

'Tamaoh' [King of Tama] 22-INDIA D  
Caught in Kaziranga, costing 6.250.000 yen. Aritake (1959) described its transport to Japan. It was the first specimen of *Rhinoceros unicornis* to be shown in Japan.

*F* 1961 August 16 – 1991 December 3 †

'Lanny' 21-INDIA C  
Caught in Assam, as gift from Indian prime minister Nehru (Hayashi 1963). While in transit at Calcutta Zoo, this female delivered a baby which remained in Calcutta. It was about 15 years old on arrival. Died of senility (Hosoda 1991).

1966 June 20 – 1966 June 20 †

'Herman' 36-TOKYO 1  
Stillborn to Tamao (22) and Lanny (21). This date is recorded in the studbook. The zoo records do not list a birth on this date, but mention the stillbirth of a male specimen on 11th June 1967.

*M* 1973 December 20 – 1978 December 12

'Saitaro' 65-TOKYO 2  
Born to Tamao (22) and Lanny (21), weight 62.2 kg on ninth day. To Amsterdam.

#### Toronto, Ontario, Canada

Metro Toronto Zoo

*M* 1976 June 12 – 1990 May 31

'Vinu' 53-MYSO 2  
From Gelsenkirchen. To New York Bronx.

*F* 1979 April 27 –

'Indira' 79-MYSO 3  
From Mysore.

*M* 1989 June 15 –

'Patrick' 69-WASH 1  
From Washington.

*F* 1991 December 25 – 1994 August 22

189-TORO 1  
Born to Patrick (69) and Indira (79). Carnio (1992) includes a photograph. To Cincinnati.

*M* 1994 September 11 –

222-WASH 4  
Born to Patrick (69) and Indira (79).

#### Trivandrum, Kerala, India

Zoological Gardens

1878 March – 1900 June 16 †

Dates recorded by Flower (1931: 202, accord-



Fig. 61. Trivandrum's male 'Moni' in January 1984.

ing to the *Annual Report* of Trivandrum Zoo 1899/1900, p. 18; not seen).

M 1956 May 29 – 1987 February 16 †  
'Moni' 12-KAZ 6  
(see Fig. 61)

M 1993 May 19 –  
175-ASSAM 25  
From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-28.

M 1993 May 19 –  
177-KAZ 24  
From Gauhati. Indian studbook (Kanpur Zoo, 1993) No. NR-31.

## Udaipur, Rajasthan, India

### Zoological Gardens

F 1941 – 1946  
It was three years old on arrival. To Jaipur.

## United Kingdom

### 1. Wombwell's Menagerie

George Wombwell (1778-1850) started his travelling menagerie at the beginning of the 19th century. It was a profitable business and, at the time of his death, there were three Wombwell menageries on the road, called Number One, Number Two and Number Three. Wombwell himself travelled with the first one, also called the Royal Menagerie (Barnaby 1988). One of the other menageries was operated by his nephew, James Edmonds.

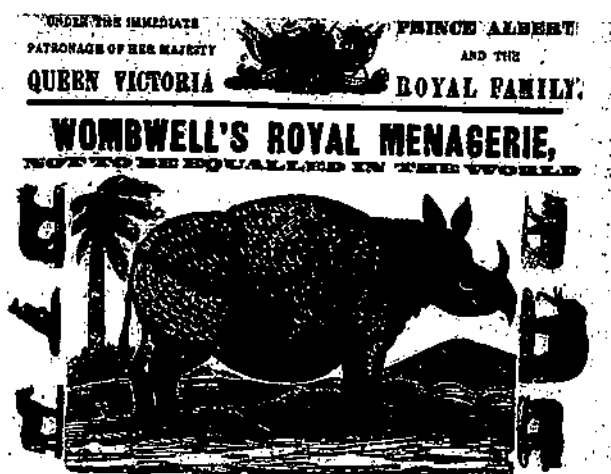


Fig. 62. Poster for Wombwell's Royal Menagerie, undated.

After Wombwell's death in 1850, the menageries were inherited by his relatives. The Number One menagerie was run by his widow until 1865, when it was taken over by a nephew, Alexander Fairgrieve. It was sold in Edinburgh in 1872 (see Barnaby 1988 with a list of the animals included in the sale: no rhinoceros). Number Two was left to a niece called Mrs. Edmonds (probably Edmonds' widow), who later merged with Bostock management and this business survived into the 20th century. The Number Three menagerie was sold off soon after 1850.

Wombwell or his associates and successors kept several rhinoceroses. Ritvo (1990: 216), unfortunately without a date, stated that Wombwell advertized a pair of rhinoceroses. This may refer to animals shown in 1838 to 1841 or in 1870 (see Fig. 62).

### 1816 – 1820 (?)

George Wombwell bought the animal from a racehorse owner named Thomas Hornby Morland, who was in financial difficulties. In 1819 it was said to be four years old, from Bengal, weighing two tons (Mark Sorrell, in litt, October 1996). It was seen at Boughton Green Fair in 1818 (Keeling 1985: 38).

### 1836 June – 1836 July †

According to the *Cambridge Chronicle* of 18th November, 1836 (Keeling 1993: 15), Wombwell purchased a rhinoceros in June 1836 'at enormous expense' but it died within a month. The specimen was stuffed and the bones articulated by 'Mr. Cashmore of Birmingham'. The animal apparently was displayed at the me-

nagerie as a stuffed rhinoceros and this should account for references to a rhinoceros in Wombwell's Royal Menagerie between at least 1836 and 1842. For example, a rhinoceros was shown in Plymouth on 15 November, 1838. The *Plymouth & Devonport Weekly Journal* for that date carried an advertisement: "Now exhibiting in the market place, Plymouth, Wombwell's Royal National Menagerie owned by G. Wombwell" (Moiser 1990). The advertisement included the information that there was a specimen of "The Great one-horned Rhinoceros, or Unicorn of Scripture", adding that "it was purchased by Mr. Wombwell at an immense expense, and must be considered a great curiosity, as there has not been one exhibited in any collection for the last twenty years". [That last statement is a curious exaggeration, as surely the English public would have known about the rhinoceros at London Zoo since 1834?].

*F 1842 November – 1850 June †*

George Wombwell bought the animal at the sale of the Manchester Zoological Gardens in November 1842 for 265 guineas (*Manchester & Salford Advertiser*, 26th November, 1842, reported in the *Bartlett Society Journal*, 6 (1995): 24). During its stay at the menagerie, a few witnesses saw a rhinoceros:

Exeter, 6th March 1845 (Moiser 1994).

Bolton, 1st January 1848 (*Bolton Chronicle*, reported by Keeling 1993: 16).

Somerset, September 1848 (Poster in Somerset Record Office, DD?SAS C/909 167/16).

The logbook of Wombwell's Number One menagerie survived and was published recently (Percival *et al.* 1989). It shows the succession of towns through which it passed, sometimes accompanied by a date, and very few additional comments. One such entry was when the menagerie was in Falkirk, near Edinburgh, on an unknown date but after May 1850, stating that the 'Rhinoceros died' (Percival *et al.* 1989: 23).

*1851*

In 1851, G.C. Quick & Co.'s Menagerie, exhibiting in Harrisburg, Pennsylvania, USA, included a rhinoceros purchased from Wombwell. There are no details about this transaction. Perhaps it was the stuffed specimen from 1836?

*1858*

A confusing remark was made by Buckland (1858, and repeated in 1882: 217-218) visiting a zoological collection "under the direction of Mr. Edmonds, late Wombwell", when he was in Windsor in November 1858. He found that "Mr. Edmonds had a very fine one-horned rhinoceros which has been in the show twenty-one years, and which cost £1400 at the sale of the animals at the Manchester Zoological Gardens; he always rides in his van, being a valuable animal and worth his carriage."

There are a few inconsistencies with the known facts. Bartlett stated that the animal had been with Wombwell for 21 years, *i.e.*, since 1837, and that it was purchased from Manchester Zoo. However, that zoo sold a rhinoceros in November 1842 and did not even exist in 1837. Such inconclusive dates aside, it still would appear that Bartlett saw a living specimen, since it would not make sense to provide a carriage for a stuffed animal. When did Edmonds purchase it and how long did it live? It could have been one of the animals imported by Jamrach in 1855 (London, Jamrach) and advertised for sale in Liverpool on 11th June, 1855, and in Manchester in 1856. However, no connection between those animals and Edmonds has been found.

*M 1870 May 20 – (?)*

The *Journal of the Bartlett Society* (No. 4, 1993, inside back cover) showed an advertisement from a Colchester newspaper, dated June 1870. Here Edmonds, or "late Wombwell's Royal ... Menagerie", exhibited two Indian rhinoceroses: "male and female, brought over in the ship *Alumburg*, and landed in London May 20, 1870". The same information on the arrival of a pair of Indian rhinos, priced at £3000, is contained in a catalogue entitled "Visitors Guide to Edmonds' Late Wombwell's Royal Windsor Castle Menagerie, exhibited at Windsor Castle & at the Crystal Palace, Newcastle Upon Tyne", 1870. In a printed guide to Mrs. Edmonds Menagerie in Scotland dated 1876 (p.11), there was still "one of those Rare and Wonderful animals" brought over in the ship *Alumbagh* (sic) and priced at £2000. It is not clear from the text which of the pair this was. Mrs. Edmonds' show was disbanded at auction in Liverpool in 1884 (Keeling 1995a: 13-14), but no rhinoceros was included.

**F 1870 May 20 - (?)**

Brought to London together with the previous male. Only one still survived in 1876, either the male or this female. In 1872, Mr. Ferguson bought a rhinoceros in the British Isles which he transported to the USA. It was described as a 'Black two-horned rhinoceros', and shown at the Van Amburgh Circus (see *Diceros bicornis*, USA). The information available is not clear enough to speculate further.

**2. Manders' Royal Menagerie**

1864

The catalogue or guidebook of a travelling menagerie operated by Manders dated 1864, listed the 'Rhinoceros (*Rhinoceros unicornis*)' among its inmates (Keeling 1997). No further information.

**United States of America**

*Travelling Menageries and Circuses*

The dates and information given below are based on the research by Reynolds, partly recorded earlier in his major paper from 1967. The identity of some of the early rhinos in American shows is open to doubt. All those specimens which cannot be definitely allocated and which were exhibited in the 19th century are included in this chapter.

**M 1830 May 9 - 1835 †**

This male rhinoceros was captured in Assam when about three months old. From August 1829, it had been kept by a Rajah in Calcutta [no particulars known], who sold it in January 1830. It landed in Boston on 9th May, 1830. It was the first rhinoceros to set foot in the USA. It belonged to the Flatfoots Association, with permanent quarters at 37 Bowery, New York City. It was assigned to the menagerie owned by June, Titus and Angevin. Considering its origin, the animal probably was an Indian rhinoceros. The following details have been discovered on its travels.

1830, 14th May, Boston, MA.

Exhibited in Washington Gardens, Tremont Street.

1830, June/July, New York, NY.

Exhibited in 350 Broadway, New York City [the date 1829 recorded in Reynolds (1968) is not correct].

1830, September/October, Philadelphia, PA. Shown by the American National Caravan, owned by June, Titus & Angevin.

1830, December, Washington, DC.

Shown by the American National Caravan.

1831, on tour with American National Caravan.

1832-1833, on tour with American National Caravan or Grand National Menagerie. On 27th January 1832 it was in Boston. The Grand National Menagerie was owned by James M. June, John J. June, Stebbins B. June and Lewis B. Titus. The route followed in 1833 is listed in Thayer (1986: 182).

1834, April, Albany, NY. Exhibited with the National Menagerie owned by James J. June, John J. June, S.B. June, L.B. Titus and Caleb S. Angevine. 1834 route listed in Thayer (1986: 182-183).

1834/1835, New York, NY. In New York City, in permanent quarters.

1835, on tour with the Zoological Institute's "The Association's Celebrated and Extensive Menagerie and Aviary" (route in Thayer 1986: 189-190). The animal died in 1835.

**M 1830 October - 1836 (?)**

This male rhinoceros was imported from Calcutta in October 1830 on board the *Georgian*. It was three years old on arrival and weighed 1590 lbs. It was imported by one Dr. Burrow or Burrough from Philadelphia. The animal belonged to the Flatfoots Association and was assigned to the show of Raymond & Ogden. Considering its origin, the animal probably was an Indian rhinoceros. It is not known when it died. The following dates and places have been recorded:

1830 December 9 - 1831 January 3, Philadelphia, PA. Shown in Philadelphia, 48 South Fifth Street. In January 1831 it was sold at auction.

1831 March, Philadelphia, PA. Exhibited by a show called the "New and Rare Collection of Living Animals" [not by the American Menagerie].

1831 July 27, Painesville, OH. Shown in Raymond & Ogden's "New and Rare Collection of Living Animals".

1832, 1833, on tour with Raymond & Ogden.

1834 October 11, Marietta, OH. Exhibited by Raymond & Ogden.

1835 August 11, Pittsburgh, PA.

1835, August, Ohio and Pennsylvania.

1836, Piqua, OH.

*F 1834 December - 1837 (?)*

Caught in Assam. The animal (probably a female) arrived in Philadelphia in December 1834. The following dates and owners have been recorded:

1835, Philadelphia, PA. Exhibited by the Zoological Institute of Purdy, Welch & Co.

1837, travelling with the Zoological Institute's Collection of Purdy, Welch and Macomber. The animal weighed 5628 lbs.

1837, 22nd-23rd August, a female rhinoceros was auctioned at the Zoological Institute.

*M 1835 May 19 - 1836 †*

A large male rhinoceros arrived in Boston on board the ship *Susan* from the Cape of Good Hope. The shipment included both Asian and African animals, some of which had been sent to Cape Town from different Asian countries (*Boston Investigator*, 12th June, 1835). It seems quite likely, therefore, that the rhinoceros was Indian, even though it was sometimes called two-horned (Newport *Rhode Island Republican*, 8th July, 1835). In fact, Macomber's circus had engaged a party to travel into the South African interior in search of rhinos and giraffes. They were returning with four giraffes, the hide of a two-horned white rhinoceros and two living rhinoceroses, when they were attacked by some people who took the animals and all the baggage (*Boston Investigator*, 12th June, 1835).

The rhinoceros belonged to the Flatfoots Association. From 1st June to 13th July, 1834, it was exhibited at 45 Union Street, Boston, in the Entire New Menagerie. Then it went to the June, Titus & Angevine Unit. It probably died in 1836.

*1848 October - 1853 March 13 †*

An Asiatic rhinoceros (sex unknown) was shown by Raymond & Waring in New London, CT, on 9th October, 1848. The same animal is found in advertisements from 1849. During 1849 it was transferred to the unit operated by Jacob Driesbach. The Raymond & Driesbach Menagerie showed a rhinoceros in Massachusetts in June 1851. The same animal appeared on 21st October, 1853, in Middletown, CT, in the Driesbach, Rivers and Devious' Menagerie & Circus. In *Gleason's Pictorial* of 4th April, 1854, there is the news that a rhinoceros in Driesbach's Menagerie from New York had died on 13th March, 1853.

*M 1851 - 1861 August 18 †*

'Putnam' or 'Old Put'

Thought to be an Indian rhinoceros, the animal was advertized by G.C. Quick & Co.'s Circus and Menagerie at Harrisburg, PA, in 1851. It was probably the same animal that was with Sands and Quick at Dedham, MA, in 1852. It was claimed that the animals then travelling with the Quick and Sands circuses (including, by implication, their rhinoceros) were obtained in England at auctions of the Wombwell Menagerie and the Estates of the late Earl of Derby (Thayer, in litt. 30th March 1993). The purchases must have been made in late 1850 or early 1851.

This rhinoceros was with Quick, Sands, and Avery Smith's circus in 1853. In 1854 it toured with P.T. Barnum's Asiatic Caravan, Museum, and Menagerie, owned by Barnum in partnership with Seth B. Howes, the latter known to have been Sands' partner in other ventures. Howes may have owned the rhinoceros by himself because, when his partnership with Barnum was dissolved in November 1854, the properties and animals did not include the rhinoceros. Instead, in 1855, it went with the Howes, Myers & Madigan Menagerie and Circus. Howes sold the rhinoceros in November 1855 for \$575. There is some confusion over the identity of the purchaser. *Ballou's Weekly* reported that Barnum bought it. If so, he immediately loaned it to Joseph Cushing, who exhibited it on Bayard and Bowery Streets in New York in December 1855. Shortly thereafter, the animal was said to have killed one of its keepers, and was taken to a farm in Putnam County, New York, from whence it got its name. The farm was owned or used by the so-called 'Flatfoot' group of showmen. In 1856, one of them, Avery Smith, a sometime partner of Howes and Sands, negotiated the sale of 'Putnam' to Dan Rice for \$700.

Rice had the rhinoceros sent to his winter quarters in Girard, PA, where it was trained by Frank Rosston. Rice presented the animal in the ring with his circus from 1857. It toured with Rice until it died on 18th August, 1861, on the Mississippi River when its cage disappeared into the river after a boat accident.

This was the first performing rhinoceros in history. Reynolds (1967) described Old Put's routine in the arena and published a photograph. Although the animal in the picture is clearly an Indian rhinoceros, Reynolds (in litt. May 1996) now believes that the photograph



in fact depicts a performing rhinoceros with a ring in its nose owned by John O'Brien in 1871-1874 and described below. The dates of 'Old Put' are rather early and the photograph was more likely to have been taken in the 1870s.

#### 1853

A rhinoceros (identity unknown) was shown by Robinson & Eldred's Great Combined Circus & Menagerie in Macon, GA, on 11th and 12th February, 1853.

#### 1868 - 1874

George F. Bailey had a rhinoceros during the seasons from 1868 to 1870, and again in 1874 (photograph in Reynolds 1970: 4).

#### 1868 July 4 - 1870 (?)

The Van Amburgh Circus (owned by Hyatt Frost) received a rhinoceros, possibly Indian, on 4th July, 1868, in Boston. It was seen on 8th July, 1868, in Newburyport, MA, and in October 1870 in Fostoria, OH.

#### M 1870 - 1875 March 13

'Pete'

#### 231-INDIA O

John V. 'Pogey' O'Brien, the Philadelphia-based circus proprietor, received a rhinoceros in 1870. He acquired a second specimen in 1871, and a third one in 1875 (see following entry). The records are too confused to be certain which specimen was shown where.

A rhinoceros was first advertized with the O'Brien Circus in 1870, suggesting that it was newly acquired for that tour. O'Brien's menagerie superintendent from 1867 was George Conklin. In his autobiography, Conklin mentioned that a rhinoceros called 'Big Pete' was loaned to Colonel Wood's Museum in Philadelphia during the winter of 1870 when the circus was not touring (Conklin 1921: 193). However, its rambunctious movements shook the building so much that it frightened the people, and Col. Wood returned the rhinoceros to O'Brien's winterquarters in Frankford. Conklin described another incident when, during an overland journey, a bridge over a Pennsylvania canal collapsed under the combined weight of Pete and his wagon. The rear of the van dropped into the water, and Conklin opened the back door releasing the rhinoceros into the canal. The animal was maneuvered into a nearby farm yard, while the cage was brought up. Tempted by carrots, the rhinoceros was induced back into the cage.

It is probably this animal called 'Pete' which was sold to the zoo in Philadelphia on 13th March, 1875, as its fondness for swaying in his cage caused the wagon to wrench the horses out of their harness (Ulmer 1941). The zoo said that the animal came from 'Barnum'. There were two circuses using that name in 1875, one of which, 'Barnum's World Fair' was in fact owned by O'Brien in partnership with P.T. Barnum.

#### M 1871 March - 1875 July 5 †

Scovill, an animal dealer, was said to have left Liverpool on 16th August, 1869, on his way to India. He captured a male rhinoceros in Assam. This rhinoceros arrived in Liverpool, where it was offered to the Zoological Society of London for £4000. This high price was not acceptable to the Society, after which the animal was shipped to New York, arriving on 1st March, 1871. It was then transported to Philadelphia. It was owned by John V. 'Pogey' O'Brien.

Despite this account of its capture and journey, it is not certain whether it was in fact an Indian rhinoceros. A certain George 'Punch' Irving wrote in *Billboard* (7th March 1925, p.79) about the tour of the Ben Maginley Show in 1874: "I was with the show. It was a large show for those days. The management carried 200 head of stock, a menagerie and featured a two-horned rhinoceros, which was brought into the ring attached to a pole and led by its keeper." In a letter presumably written in 1914 (published in the *Jamesville Gazette*), Frank Melville wrote that he saw a 'black rhinoceros' in O'Brien's buildings in Frankford, PA: "He was a double-horned fellow, but they had sawed his horn off short." This introduces doubt about the animal's identity, which can never be resolved now.

In 1871, there was a rhinoceros at a circus called "John O'Brien's Caravan, Monster Menagerie and National Caravan" and another specimen (one of these being the previous entry) with O'Brien's "Sheldenberger's European Menagerie and Grecian Circus". The second of these animals was apparently trained to perform in the ring. In 1873, this rhinoceros was assigned to the Dan Rice circus, in which O'Brien had an interest.

In 1874, a trained rhinoceros was included in Maginley & Co.'s Circus and Menagerie (owned by O'Brien). On 16th July, 1874, the animal was seen while it was being ridden by 'a native' in Brunswick, MN. C.G. Sturtevant

('Circus Menageries', *Billboard* 13, June 1925, p.76) said that it was handled with a long pole attached to a ring in its nose. Apparently, this trained rhinoceros died on 5th July, 1875, in Bradford, PA, when touring with the circus of A.B. Rothchilds & Co. (owned by O'Brien).

*F 1872 November - 1876/1877 (?)*

John Robinson came to Atlanta, GA, in November 1872 with his "Old John Robinson's Great Zoological Exposition and World's Fair of Wonders". There he showed a 'black Sumatran rhinoceros' which was said to have been caught in Sumatra in 1869. This animal was present in his shows in 1873 and 1876. Robinson deposited a rhinoceros at the Cincinnati Zoo in April 1877. This was a female Indian rhinoceros, not a Sumatran one. It returned to the circus in 1878, but no further particulars are known.

*1872 December - 1873 September 29 †*

P.T. Barnum bought a rhinoceros during the winter of 1872-1873. It may have been Indian. It died of a fit while in Philadelphia on 29th September, 1873.

*1873 January - 1875*

P.T. Barnum had a rhinoceros while in New York in January 1873. In September of that year there was a rhinoceros at his winter-quarters in Bridgeport, CT. This animal may have been the same as 'Pete', which arrived at Philadelphia Zoo on 3rd September, 1875, from Barnum (it died in 1900).

*1875 July - 1882 (?)*

This is the third rhinoceros owned by O'Brien in the 1870s. It was acquired by A.B. Rothchilds to replace the trained one that died in early July 1875 (*Clipper*, 24th July 1875). The identity of this animal is not exactly known. However, in 1876, a rhinoceros called 'Himalaya' toured with A.B. Rothchild & Co., pointing to an Asian origin.

In 1878, there was a rhinoceros with Campbell's New York and Philadelphia Zoological & Equestrian Institute (owned by O'Brien). In 1878, Campbell's Institute was sold to George Batcheller and John B. Doris. In 1882, a rhinoceros was mentioned in a herald as owned by Batcheller and Doris. It is not known when it died.

*1876 - 1877 †*

James A. Bailey went on an Australian tour with the Cooper, Bailey's & Co. International Allied Shows. He left San Francisco in 1876. It is rumored that a rhinoceros was present at that time, but it is not included in the advertisements. Murray (1956: 240) stated that a rhinoceros died in a storm near Indonesia and that the animal's remains were thrown overboard.

*1877 - 1879 July 30 †*

After the loss of a rhinoceros in 1877 (see previous entry), James A. Bailey purchased another specimen. It is not clear how he could have found one in Australia at that time, but it is just possible that he obtained it in Java, Indonesia, where he also exhibited the show. Later, this International Allied Show visited South America in 1878 and returned to New York in December of that year. One rhinoceros died on 30th July, 1879, while Bailey was in Ottawa, KS.

*1878*

P.T. Barnum had a rhinoceros of unknown identity in his show during the 1878 season.

*1879 - 1887*

Burr Robins first had a rhinoceros (identity unknown) in 1879. It was again listed in his show in 1884, 1885 and, for the last time, in 1887.

*1883 - 1886*

P.T. Barnum and James A. Bailey had two rhinoceroses during 1883-1886. One was double-horned (see *D. sumatrensis*), but no particulars about the second one are known.

*1884 - 1888*

Adam Forepaugh had a rhinoceros (of unknown identity) in the Great Forepaugh Show of 1884. In 1884, only a rhino enclosure is found in the advertisements.

*1898 - 1902*

James Bailey went on a European tour in 1897. He had no rhinoceros upon his departure from the USA. However, he purchased a rhinoceros of about three years of age early in 1898 at Olympia in London, for £800. This was an Indian rhinoceros called 'Queen Elizabeth', imported in the winter of 1897/1898. The circus toured the continent, visiting the Nether-

lands in 1901, and France and Switzerland in 1902. It returned to New York in November 1902, but at that time there is no mention of a rhinoceros.

*M* 1907 – 1926 September 28 †  
'Old Bill'

Widely travelled and seen by millions across the US, this was the last Indian rhinoceros in an American Circus (Reynolds 1967: 287-290, 292, figs. 2-4). Although its whereabouts from 1910 onwards are now well established, its earliest years in captivity are clouded with uncertainty. However, it is known that it was purchased by the Ringlings somewhere between 1905 and 1910, and first toured either with the Ringling Brothers Circus or its affiliate, the Adam Forepaugh & Sells Bros. Circus. Reynolds (1967) suggested that it was one of four imported from Nepal by Hagenbeck, because he offered one to the Ringlings. However, no proof of its arrival in the circus has been found. This is perplexing, because circuses usually publicized any acquisitions of such great rarity and value. From 1910, its itinerary was as follows:

1910-1911: on tour with Adam Forepaugh & Sells Bros. Circus.

1912-1913: on tour with Ringling Brothers. On 5 July, 1913: it was sent to the Barnum & Bailey Circus (Reynolds 1993: 28, according to a ledger at Circus World Museum, Baraboo, WI).

1913-1918: on tour with Barnum & Bailey Circus.

1919-1926: on tour with Ringling Bros., Barnum & Bailey Circus.

In 1926, it died on the road while in Fort Worth, TX. Its remains went to the Peabody Museum of Natural History, Yale University, New Haven, CT, where its hide was mounted and later put on display.

## Vadodara, Gujarat, India

### 1. Collection of the Maharajah of Baroda

1825

Heber (1827, III: 5) visited the court at Baroda, and "in passing through the city I saw ... a rhinoceros (the present from Lord Amherst to the Guicwar) which is so tame as to be ridden by a mohout, quite as patiently as an elephant".



Fig. 63. Rousselet's depiction of a rhinoceros fight at Baroda, 1864.

1864 June

When the French traveller Louis Rousselet visited Baroda in June 1864, he witnessed a fight between two rhinoceroses, as described in his book of 1877 (p. 123-124). The graphic account is illustrated by an engraving made from a drawing by E. Bayard, in which the animals each have two nasal horns (see Fig. 63). This could be artistic license or actual fact, in which case the animals were of Sumatran or African origin.

1875

On the occasion of the visit of the Prince of Wales to Baroda, two rhinoceroses were made to fight each other. They could have been the same specimens that were present in 1864, or different ones. The event is commemorated in *The Illustrated London News* for 25th December, 1875, in a sketch showing two single-horned rhinos both tied with a chain around the two front legs.

### 2. Zoological Gardens

*F* 1969 April 5 – 1990

From Gauhati. The stay in Baroda Zoo has not been confirmed, but the animal's transfer to Mysore was mentioned in *Zoo's Print*, June 1990. To Mysore.

**Vienna, Austria***Schönbrunner Tiergarten**F 1856 May 24 - 1894 October 23*

Arrived in Europe in 1855 (Knauer 1914: 61), when it was two years old. It was bought from Jamrach for 4106.45 guilders. A photograph taken by A. Pichler around 1880 was used by Antonius (1937: 19). Kourist (1970: 146, fig. 6) discussed a plate made by H. Leutemann in 1858, probably depicting this specimen. To Wrocław (Breslau), together with two elephants, when the pachyderm house was renovated.

**Washington, DC, USA***National Zoological Gardens**M 1939 July 7 - 1959 January 9 †**'Gunda'**233-INDIA Q*

Caught in Assam.

*M 1960 May 26 - 1981 April 1**'Tarun'**19-INDIA B*

Caught in Assam. It was 2.5 years old on arrival. To New York Bronx.

*F 1963 December 16 - 1980 September 9 †**'Rajkumari'**28-GAUH 1*

From Gauhati (born in transit in 1963). The mother (30) died soon after arrival in Washington. Rajkumari was then hand-fed for about six months (see Fig. 64).

*F 1963 December 16 - 1963 December 28 †**'Deepali'**30-INDIA H*

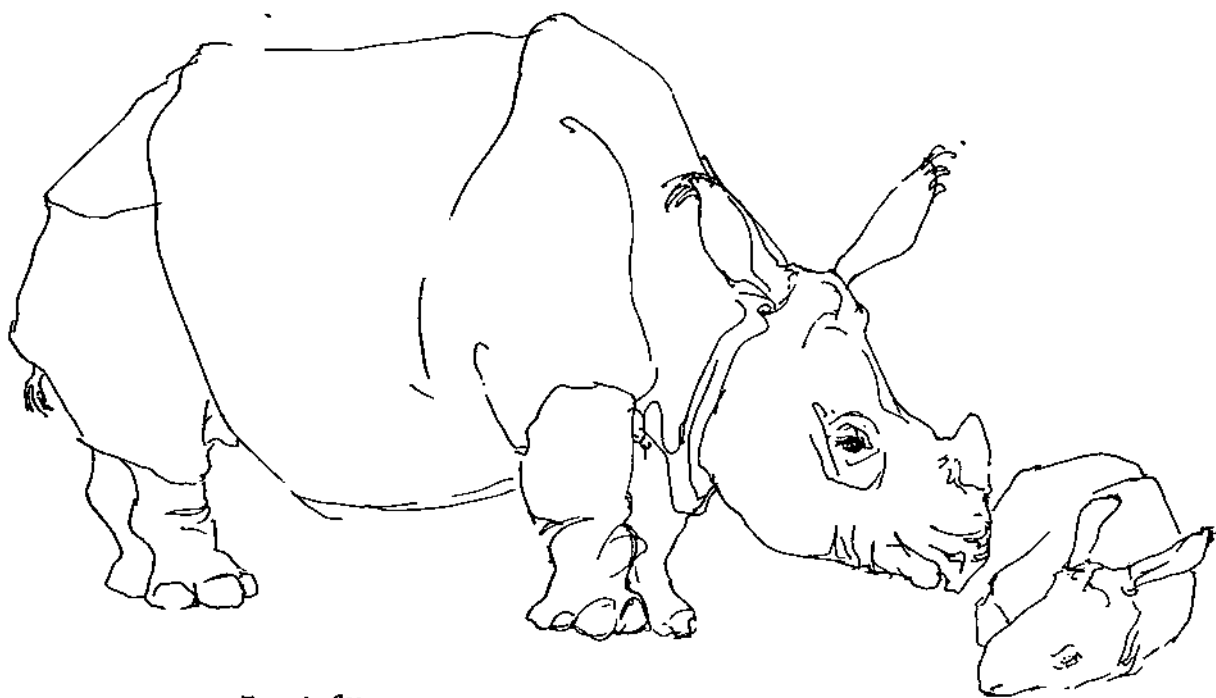
Caught in Assam when it was 15 years old. Died of gastro-enteritis, infestation with tapeworm and hookworm.

*M 1974 January 30 - 1975 October 30**'Patrick'**69-WASH 1*

Born to Tarun (19) and Rajkumari (28), gestation 487 days, weight 56.6 kg. It was named after Patrick Moynihan, the American Ambassador to India. The first rhinoceros born in the USA. The birth was announced, with photographs, in Anon. (1974), while many details about the breeding behavior and growth of Patrick were provided by Buechner *et al.* (1975), Buechner & Mackler (1978), and Mackler & Buechner (1978). To New York Bronx.

*M 1985 July 1 -**'Pandu'**101-SDWAP 4*

From San Diego.



Margaret Brown 1974

Fig. 64. Mother 'Rajkumari' and calf 'Patrick' drawn in Washington by Margaret Brown in 1974.

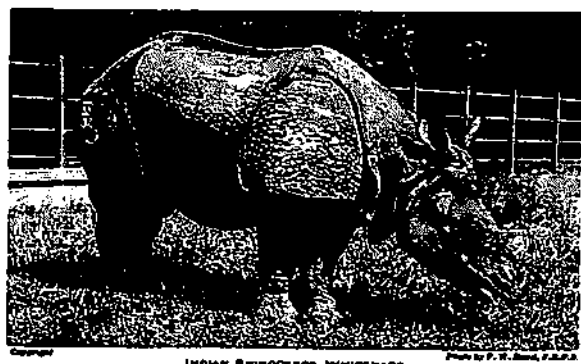


Fig. 65. Postcard of Indian rhinoceros at Whipsnade, August 1936.

F 1987 May 27 –  
'Mechi'

138-NEPAL 15

Captured in Chitwan National Park, Nepal. Gift from the King of Nepal to President Ronald Reagan and the people of the USA. It was about one year old on arrival. Exhibited in Philadelphia from 10th May, 1994 to 20th October, 1994.

F 1987 May 27 –  
'Kali'

139-NEPAL 16

Captured in Chitwan National Park, Nepal. Gift from the King of Nepal to President Reagan and the people of the USA. It was six months old on arrival.

M 1992 July 30 – 1992 July 30 †

199-WASH 2

Stillborn to Pandu (101) and Mechi (138).

M 1993 January 15 – 1993 January 15 †

205-WASH 3

Premature birth to Pandu (101) and Kali (139).

### Whipsnade, UK

Zoological Society of London  
Whipsnade Park

M 1935 June 6 – 1945 March 15 †  
'Hush'

From London. The skull is preserved at the



Fig. 66. Urine collection from an Indian rhinoceros in Rangoon, January 1981.

Natural History Museum, London, No. 1951.10.8.4 (Groves 1982: 253) (see Fig. 65).

*M* 1947 August 7 – 1961 March 7 †  
'Mohan' 13-INDIA A  
Caught in Kaziranga, Assam in February 1947. A female, caught at the same time, died of blood poisoning before it was shipped (Street 1953: 76). Skull preserved at the Natural History Museum, London, No. 1961.5.10.1 (Groves 1982: 253).

*F* 1952 July 16 – 1976 April 26  
'Mohini' 8-ASSAM 3  
Caught in Kaziranga on 12th February, 1952, when about two years old (Gee 1952 with pictures; Street 1953: 77). To Amsterdam.

*F* 1957 October 29 – 1959 June 23  
'Mohinji' 15-WHIP 1  
Born to Mohan (13) and Mohini (8), gestation 488 days. To Milwaukee.

*M* 1960 August 18 – 1975 April 25 †  
'Manik' 20-WHIP 2  
Born to Mohan (13) and Mohini (8), gestation 488 days.

*F* 1973 February 6 –  
'Roopa' 51-DELH 1  
From Delhi.

*M* 1976 March 26 –  
'Kumar' 60-BER W 1  
From Amsterdam. It first came on breeding loan, but it was acquired on 31st December, 1979.

*F* 1981 May 21 – 1981 May 21 †  
107-WHIP 3  
Stillborn to Kumar (60) and Roopa (51).

*M* 1983 March 9 – 1985 October 2  
'Bheema' 115-WHIP 4  
Born to Kumar (60) and Roopa (51), birth weight 8 stone 8 lbs. To Antwerp.

*M* 1986 August 9 – 1987 December 2  
'Rama' 132-WHIP 5  
Born to Kumar (60) and Roopa (51). To Chester.

*M* 1988 May 8 – 1990 November 16  
'Ropen' 145-WHIP 6  
Born to Kumar (60) and Roopa (51). To Dvur Kralove.

*M* 1989 October 2 –  
'Bardia' 162-WHIP 7  
Born to Kumar (60) and Roopa (51).

*F* 1991 October 19 – 1991 October 19 †  
234-WHIP 9  
Stillborn to Kumar (60) and Roopa (51).

*F* 1993 May 1 – 1993 May 1 †  
207-WHIP  
Born to Kumar (60) and Roopa (51). It survived, only for 36 hours.

## Wroclaw, Poland

### 1. Kallenberg's Menagerie

1874

No details are known, except that Kallenberg showed a rhinoceros in Breslau in August 1874 (Gleiss 1967: 43).

### 2. Miejski Ogród Zoologiczny

*F* 1894 October 23 – 1895 November 14 †  
From Vienna (where it had lived since 1856). Postmortem reported in Anonymous (1896b: 280). It was said to have lived 42 years, of which 39 years were spent in captivity (Gleiss 1967: 241).

## Yangon, Myanmar

### Zoological Gardens

*F* 1938 – 1942 March †  
'Rosie'  
Presented by the Prime Minister of Nepal when Sir Harcourt Butler was Governor of Burma. It was killed by the invading Japanese army (Tun Yin 1967: 153).

*F* 1962 January – before 1964 †  
'Khin Way Way' [=Miss Affection]  
Caught in Nepal (Reynolds 1962a: 54). Date of death not clear (Rookmaaker and Reynolds 1985: 153).

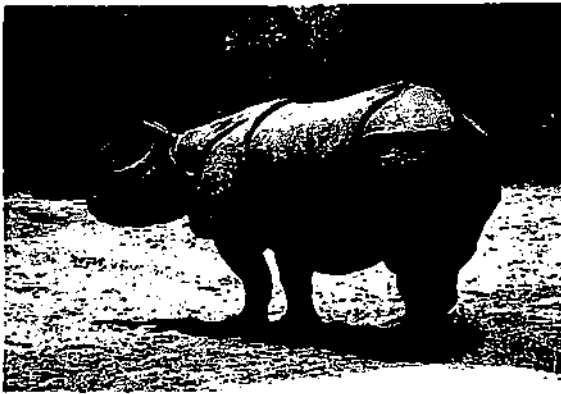


Fig. 67. Female Indian rhinoceros 'Sawako' at Yokohama, 1993.

*M* 1980 August 27 – 1993 June †  
 'Bhunte' 103-NEPAL 8  
 Caught in Nepal, when eight months old. Martin and Martin (1982: 87) showed a photograph of this animal in the zoo, together with two keepers waiting with a bottle to catch the urine. It died due to equine viral encephalitis caused by a virus (see Fig. 66).

*F* 1980 August 27 – 1993 June †  
 'Lorie' 104-NEPAL 9  
 Caught in Nepal, when ten months old (Martin and Martin 1982: 79). Died of the same cause as the male (103).

### Yokohama, Japan

#### Kanazawa Zoo

This park was opened in 1982. In 1993, it housed 23 endangered species of mammal.

*M* 1985 August 27 –  
 'Kintaro' = 'Katgin' 117-STUTT 6  
 From Magdeburg.

*F* 1985 December 4 – 1995 January †  
 'Sawako' 122-KAN 1  
 From Kanpur (see Fig. 67).

## 5. The Javan rhinoceros (*Rhinoceros sondaicus*)

The Javan Rhinoceros was only very exceptionally exhibited in captivity. This list includes the records of 22 specimens. Even this small number could only be attained by including eight rhinos which were kept in their native Java in the 17th, 18th and early 19th centuries, five rhinos that died soon after capture, and one that died on the way to Europe. Of the remaining eight specimens, only four survived their capture and transport to be exhibited in the zoological gardens of Adelaide, Calcutta and London.

The reason for this excessive rarity in captive collections is not immediately clear. Today, we think of the Javan rhinoceros as a species on the verge of extinction, with remnant populations in the Ujung Kulon National Park of Western Java, Indonesia (about 50 animals), and in the remote parts of Laos and Cambodia (Rookmaaker 1988, Schaller *et al.* 1990). However, the species used to be widely distributed from the Sunderbunds (Ganges delta) in Bangladesh, east through Myanmar and Thailand to Indochina, and south through Malaysia to the Indonesian islands of Sumatra and Java. Up to at least the end of the last century, the Javan rhinoceros was regularly encountered in most of these regions. In the years between 1870 and 1890, animal dealers such as Jamrach of London and Hagenbeck of Hamburg, through their agents and contacts, brought large numbers of animals from southern and southeastern Asia to Europe. Operating from Calcutta and Singapore, the dealers received Indian rhinos from the northeastern states of India, and Sumatran rhinos from, in particular, Malaysia. At that time, the Javan rhinoceros could still be found in acceptable numbers in the Sunderbunds area near Calcutta and in several regions of Malaysia. The Sunderbunds with all its small islands and creeks may be a rather inaccessible habitat, but the same could be said of the rain forests where many other rhinos were caught. Perhaps, by chance, the Javan rhinoceros was seldom caught (existing in low numbers in inaccessible places), and dealers did not have enough incentive actively to search for them. In those days every rhinoceros was special in Europe, while there was always confusion

between the well-known Indian species and the closely related Javan one.

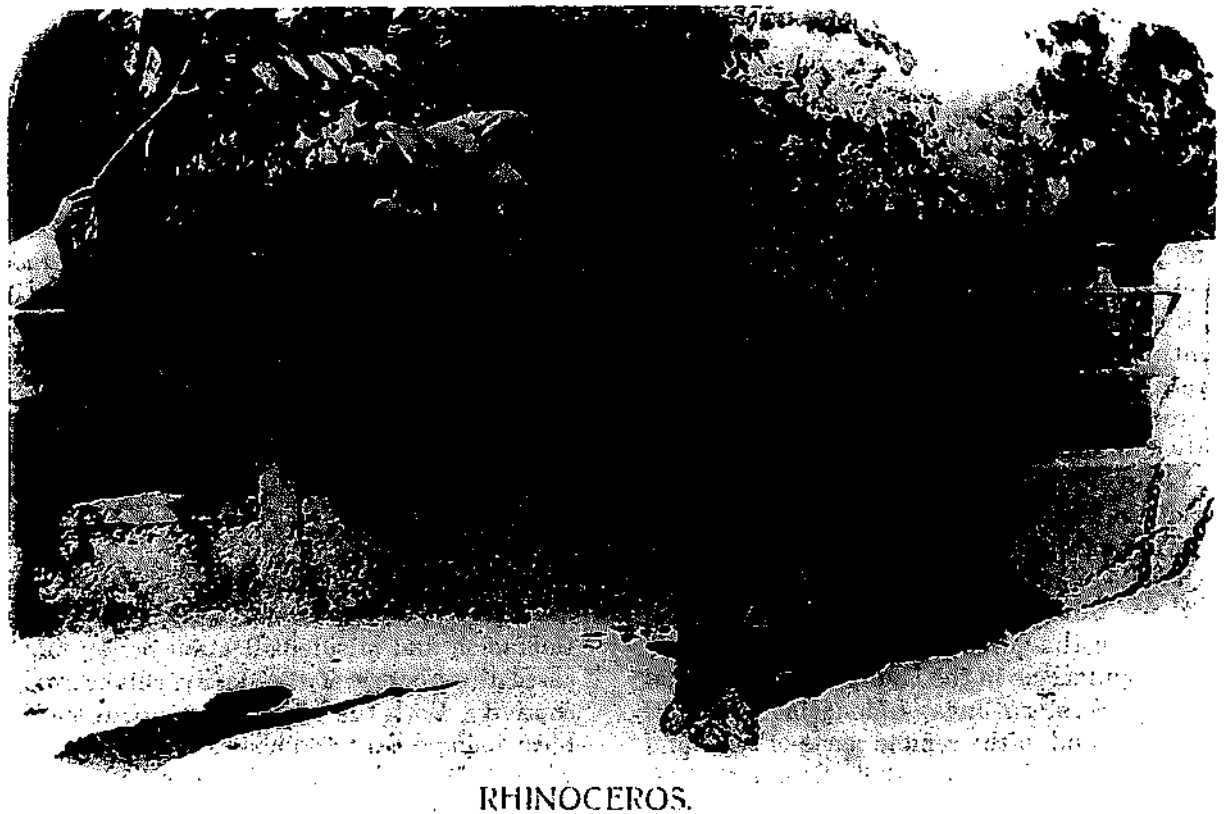
In this century, only two Javan rhinos have been captured. Recently, a proposal was made to catch a few specimens in Ujung Kulon in order to start a captive breeding programme (Nardelli 1987b). This idea did not receive much support. The species has never been able to breed in captivity and, therefore, the historical records cannot help in a decision about conservation measures.

### Confusion between species

Confusion and misidentification have complicated the history of the Javan rhinoceros in captivity. Both the Indian and Javan species have a single horn and heavy folds in the skin, while their distribution borders, or overlaps in, Northeastern India. In the present list we have only accepted the rhinoceros as being Javan when there was positive evidence (photographs, drawings, preserved specimen) or irrefutable suggestion (animals caught on Java). It is likely that this has resulted in an underestimate, *i.e.*, that some Javan rhinoceroses have been delegated to the list of Indian rhinoceros, because there is no proof that they were in fact Javan. There is still plenty of scope for further investigations, which will possibly add a few more Javan rhinos to the list.

There was one authenticated *R. sondaicus*, which was exhibited throughout its life as an Indian rhinoceros, in Adelaide between 1886 and 1907. Fortunately, the animal's remains were preserved and this allowed the record to be set straight. In fact, there is just one specimen which caused debate during its lifetime: the rhinoceros exhibited in Berlin from 1874 (Fig. 27). It was thought that this was an *R. sondaicus*, but P.L. Sclater disagreed and called it Indian (the details of the debate have been summarized in the entry of this specimen in the chapter on *R. unicornis*). It seems that this issue was soon forgotten or thought to be unworthy of further investigation, because nobody took pains to look again when the animal died or even to ensure that the





RHINOCEROS.

Fig. 68. Postcard of a Javan rhinoceros at an unknown zoo, probably in India around 1900.

remains were preserved in a national museum. Some of these issues can never be clarified to everybody's satisfaction without further evidence, which is usually simply not available.

There have been some recent suspicions that a presumed Indian rhinoceros was, in fact, Javan. Such claims are easily made, but they are very hard to refute or substantiate. Based on the literature, Reynolds (1961a) listed two such specimens in his list of the Javan rhinoceros: one in a zoo in Liverpool in 1836 and one in Venice around 1730-1740. The latter refers to a painting by Pietro Longhi from 1751 (Fig. 70), which in itself may not be very clear, but the same animal is known to have travelled throughout Europe from 1741 and was clearly Indian (see, *Indian Rhinoceros: Europe, Travelling Menageries*). The Liverpool rhinoceros is a more complicated case, but from all the available evidence set out in Rookmaaker (1993), it appears that the animal was in fact Indian (see, *Indian Rhinoceros: Liverpool*).

There are still a number of open questions. The rhinoceros shown at Amsterdam Zoo from 1864 to 1873, believed to be Indian, may have been depicted on a drawing (pub-

lished without direct reference to the specimen in the zoo) showing a Javan animal (Fig. 18). Secondly, there is a postcard in a private collection in London which was probably printed in India around 1900 (Fig. 68, earlier published by Edwards 1996b: 143). It shows a Javan rhinoceros in a zoo, but 'where and when' is still very much open to debate. Finally, a *R. sondaicus* skull preserved at the Manchester Museum is said to have belonged to a captive animal, but again there is no record of where the skull came from or when it reached the museum. It is quite probable, therefore, that there were more than 22 Javan rhinoceroses in captivity and further investigations may reveal some much needed evidence.

### Longevity

The data on 18 Javan rhinos (80% of the total) are rather incomplete and do not give any clue as to the possible longevity in captivity. Three (2/1) animals lived between ten and 19 years in captivity, while one male reached just over 20 years (Table 23).

Table 23 Longevity of captive Javan rhinos dying in captivity

Sex	Place	Dates	Age		Total in days
			years	months	
Male	Adelaide	12 April 1886-4 February 1907	20	9.5	7603
Female	Calcutta/Calcutta	(?)1877-(?)1892	15		
Male	London	7 March 1874-23 January 1885	10	10	3975

### Origin of imports

The Javan rhinos were captured in the following countries:

India	5
Java	9
Laos	2
Malaysia	2
Thailand	2
Unknown	2

### Chronological list of all known specimens of *Rhinoceros sondaicus* in captivity

This list presents all known and likely specimens of the Javan Rhinoceros kept in captivity throughout the ages. The first column gives the status of the animal (W: imported from the wild). The second column gives the sex (M: male; F: female; no entry signifies sex unknown). The final column begins with year of arrival in the collection, followed where the collection is located, followed by a year and another collection in case of transfer. If the

Table 24. Collections where the Javan Rhinoceros has been exhibited (1647-1994), arranged by country in each continent:

<i>Country</i>	<i>Total places</i>	<i>Year and place of first rhino</i>	
<i>Asia</i>			
Cambodia	1	-	Angkor Vat
India	6	1875	Calcutta (dealer)
Indonesia	1	1647	Private
Malaysia	1	1905	Private
Thailand	1	1860	Private
Total: 5 countries, 10 collections. First import 1647 into Indonesia			
<i>Australia</i>	1	1886	Adelaide
Total: 1 country, 1 collection. First import in 1886			
<i>Europe</i>			
Austria	1	-	Vienna
Germany	1	1877	Hagenbeck
UK	2	1874	London
Total: 3 countries, 4 collections. First import 1874 into UK			
<i>World Total</i>	9 countries, 15 collections		

Table 25. Population changes from 1600-1994 in the Javan rhinoceros. Numbers show total (male/female/sex unknown):

Period	Imported animals	Captive births	Deaths	Total animals at end of period
1600-1700	3 (0/1/2)		3 (0/1/2)	0
1700-1800	5 (0/2/3)		5 (0/2/3)	0
1800-1869	2 (0/0/2)		2 (0/0/2)	0
1870-1879	7 (2/2/3)		5 (1/1/3)	2 (1/1)
1880-1889	2 (1/0/1)		2 (1/0/1)	2 (1/1)
1890-1899	1 (0/1)		2 (0/2)	1 (1/0)
1900-1909	1 (1/0)		2 (2/0)	0
1930-1939	1 (0/0/1)		1 (0/0/1)	0
Total	22 (4/6/12)		22 (4/6/12)	

line ends with the name of a collection, the animal was presumed alive in 1995, while if the line ends with a year, the animal died in that year.

Status	Sex	History
W		1647 Java 1647
W		1648 Java: Mataram (?)
W	F	1661 Java: Batavia (?)
W		1720 Java: Batavia (?)
W		1740 Java: Batavia (?)
W	F	1786 Java: Ceribon 1786
W	F	1786 Java: Ceribon 1786
W		1799 Cape of Good Hope (Vienna) 1799
W		1816 Java: Surakarta 1821
W		1860 Bangkok 1860
W	M	1874 Java 1874 London 1885
W	M	1875 Calcutta: Rutledge 1875
W		1876 Calcutta: Jamrach 1876
W		1877 Hamburg: Hagenbeck (?)
W	F	1877 London: Jamrach 1877
W	F	1877 Calcutta: Wajid Ali
		1887 Calcutta 1892
W		1877 Calcutta (?)
W	M	1886 Adelaide 1907
W		1886 Bangkok 1886
W	F	1897 Bangkok 1897
W	M	1905 Malaysia 1905 India (?)
W		1939 Bangkok 1939

### List of specimens of *Rhinoceros sondaicus* in captivity

#### Adelaide, South Australia

##### Adelaide Zoo

*M* 1886 April 12 – 1907 February 4 †

In 1885-1886, R.E. Minchin, the zoo's director, visited Ceylon, Singapore, Thailand and Java, and he obtained 36 species of mammals. He purchased a rhinoceros in Singapore for £66. During its life, it was exhibited as an Indian rhinoceros. The traders alleged that it came from Borneo, but a single-horned rhinoceros is not known there. The records available in the zoo show a more likely provenance as the Malay Peninsula (Rix 1978: 12). The rhinoceros was about 1.5 years old on arrival in Adelaide. At the end of its life, the teeth were so worn that it could not properly masticate its food and it had to be fed bran mash and similar foods (Rix 1978: 208, with picture taken in 1901 on p. 12). If it really died of 'old age', it must have been considerably older than 18 months when it arrived in Australia. The date of death is recorded in the Annual Report of



Fig. 69. Mounted hide of the Javan rhinoceros in Adelaide.

the South Australian Zoological and Acclimation Society for 1906/1907.

Its remains were preserved in the South Australian Museum, Adelaide (No. M.1570), where they were studied by Finlayson (1950). The mounted hide is only 135 cm high, while the skull is the smallest known for the Javan rhinoceros. Finlayson confirmed that the animal was actually a typical example of *Rhinoceros sondaicus*. The same conclusion was reached by Groves (1982: 255, Table 2), based on characteristics of the skull. A photograph of the mounted specimen was published by Groves (1971, fig. 9). See Fig. 69.

## Bangkok, Thailand

### Various collections

1860 April 5

Blyth (1862: 168) referred to a note by Dr. Bradley in the 'Siamese Calender' for 5th April 1860, that a "rhinoceros was brought to the city from the north. Though a great curiosity, it was little thought after, because a prevalent notion that his way had been heralded by the cholera, and that the effluvia from his body was almost sure to give that disease." The species of the animal and the length of its life (probably short) are not mentioned.

1886

A single-horned rhinoceros was brought alive to Bangkok from a place near Krabin [probably Krabi], Southern Thailand. It lived 'for some time' (Loch 1937: 134, Rookmaaker & Reynolds 1985: 154).

F 1897

Flower (1900: 367) recorded that a young female *Rhinoceros sondaicus* was presented to the Siamese Museum on 10th February 1897, "which I am told had been brought from the Laos country, and had died on reaching Bangkok".

1939

A rhinoceros caught in Northern Laos was taken alive to Bangkok. It had only one horn. Its death is not recorded (Cheminaud 1939: 83, Reynolds 1961a: 31).



Fig. 70. Pietro Longhi's painting of the 'Dutch rhinoceros' in Venice in 1751, sometimes regarded as an *R. sondaicus*.

## Calcutta, West Bengal, India

### 1. Alipore Zoological Gardens

1877 November 17 - (?)

A list of animals residing in Calcutta Zoo in 1877/1878 lists a juvenile specimen of *R. sondaicus* arriving on this date (Anonymous 1878: 30). Sanyal (1892: 134) stated that a young Javan rhino died from inflammation of the lungs within 24 hours of developing the first symptoms, which may refer to the present specimen. The extent of its life is not known, but it must have died or left before 1883, when Anderson (1883: 77) stated the absence of rhinos in the park.

The collection of the Indian Museum in Calcutta once had the skull of a young male 'donated by Zoological Gardens' (W.L. Sclater 1891: 203, No. r). As this specimen was not listed by Blyth (1863), the skull must have arrived at the museum after the publication of his catalogue, i.e., between 1863 and 1891. It is no longer present in the museum (Groves and Chakraborty 1983).

*F 1887 - 1892 (?)*

This specimen was part of the private collection of the 'late' King of Oudh (Wajid Ali Shah) in Calcutta (see below, No. 4), where it had lived for about ten years, according to Sanyal (1892: 131). Flower (1931: 203) said that it lived a total of 14 years in captivity, but this must be based on Sanyal's observations. Therefore, the animal could have lived longer.

*2. Jamrach (animal dealer)*

1876 May

Sclater (1876b) exhibited in London the hide of a young rhinoceros belonging to W. Jamrach. He said that the animal had been captured in the Sunderbunds (in the present Bangladesh) in May 1876. It arrived safely in Calcutta, but died there within 24 hours. There is no record of the disposition of the remains.

*3. Rutledge (animal dealer)*

*M 1875 November - 1875 December 2 †*

The members of the Asiatic Society of Bengal came together on 1st December 1875, having been promised to be shown a living example of the Javan rhinoceros. However, the animal was sick. A footnote to the published proceedings of the Society states that the rhinoceros died the following day (Wood-Mason 1875). There is no certainty, but it might be assumed that this is the same specimen the skull of which was presented to the Indian Museum in 1875 by Mr. W. Rutledge (animal dealer in Calcutta) (W.L. Sclater 1891: 203, No. j). This juvenile male skull is still in the collection of the Zoological Survey of India, Calcutta, No. 19378 (Groves and Chakraborty 1983: 254-255).

*4. King of Oudh, Nawab Wajid Ali Shah*

When the kingdom of Oudh was annexed to the British crown in 1856, Wajid Ali Shah was taken to Calcutta and 'imprisoned'. He mainly stayed in a house in Metiabruz in the Garden Reach area of Calcutta until his death in 1887. He had a collection of wild animals.

*F 1877 - 1887*

This animal arrived at the zoological gardens in Calcutta in 1887, after having been for 'about ten years in the menagerie of the late King of Oudh' (Sanyal 1892: 131). The origin of the animal is not recorded.



Fig. 71. Rhinoceros carrying a god in a Siamese book of drawings, ca. 1880.

**Cambodia***Angkor-Vat, 12th-13th century*

In the East wing of the Northern gallery of this famous temple complex, there is a bas-relief showing a rhinoceros carrying Agni, the Hindu god of fire (Stöner 1925, Brentjes 1978: 157-158). The rhinoceros has one horn on its nose, but otherwise the depiction is not very clear. A similar representation of the rhinoceros was found in a book of drawings illustrating Hindu mythology, made in Thailand around 1880 (see Fig. 71). The animal in this latter illustration was identified as a *Rhinoceros sondaicus* by Brentjes (1978), which would also be expected considering the presence of that species in Thailand and Cambodia. The fact that the rhinoceros was chosen to carry the god may indicate that these animals had some similar use to the people living in Cambodia in those days, or that the artist had seen them in a captive situation. Beyond this indication, we can only speculate.



Fig. 72. Rhinoceroses from a 17th-century Indian manuscript.

## Hamburg, Germany

Carl Hagenbeck (animal dealer)

ca. 1877 – 1879

Hagenbeck (1914: 277) said that he once had had a specimen of the true *Rhinoceros sondaicus*: "erhielt ich gegen Ende des siebziger Jahre auch das echte Javanische Nashorn" ["towards the end of the 1870s I received a genuine Javan rhinoceros"]. Its disposition is uncertain.

Some additional information has come to light in the USA. The *New York Clipper* was a weekly newspaper that reported on the American entertainment business. It was at its height of popularity in the thirty years following 1870, being gradually replaced by *The Billboard* from Cincinnati, Ohio. Each issue of the *Clipper*, as well as the later *Billboard*, had a section about circuses, and often about zoos.

The German Hagenbeck company had dif-

ferent American agents over the years. In 1882, one such agent was George Bunnell of New York City, who resided at the corner of Broadway and 9th Street. The *New York Clipper* for 27 May 1882 (p. 167) included this notice: "I am now the special representative of Carl Hagenbeck for the sale of wild animals, etc., at prices as cheap as at his Zoological Gardens, Hamburg, and lower than any house in America." He continued that, "Among those on hand" were "large two-horned rhinoceroses, one Java rhinoceros, second in Europe." 'On hand' would probably have meant that it was available in Hamburg, in case American buyers were not forthcoming. Although Hagenbeck stated the presence of the Javan rhinoceros at the end of the 1870s, his book was written sometime later, and his remark may not be inconsistent with its being offered for sale in 1882.

This account reminds me of that rather curious note published in *Der Zoologische Garten* in 1879 stating that a 'rhinoceros aus Java' caused havoc on board the vessel 'Colon' on its way from New York to San Francisco (Reynolds 1961a: 32). I believe that Richard Reynolds proved beyond doubt that this happened in 1877 and that the rhinoceros was African (Rookmaaker and Reynolds 1985: 136–137). One wonders how the journalists who recorded the story in the first place could invent that the animal was 'Javan'. Perhaps Hagenbeck's specimen was in fact sold to some unknown collection in the USA. If this could be proved, it would have been the only animal of this species ever to have been present in the New World.

## India

### Various collections

#### 17th century

During the time of the Mughal Emperor Jahangir, artists created many miniatures depicting the Emperor hunting wild animals. One of these, illustrated in Ettinghausen (1950, pl. 33) shows two rhinoceroses, one of which is attacking an elephant. Brentjes (1969) suggested that these rhinos had the characteristics of the Javan species. As it is unlikely that *Rhinoceros sondaicus* ever occurred in the western part of India, these would have to be imported animals, or animals hunted in the area of the present Bangladesh, which formed

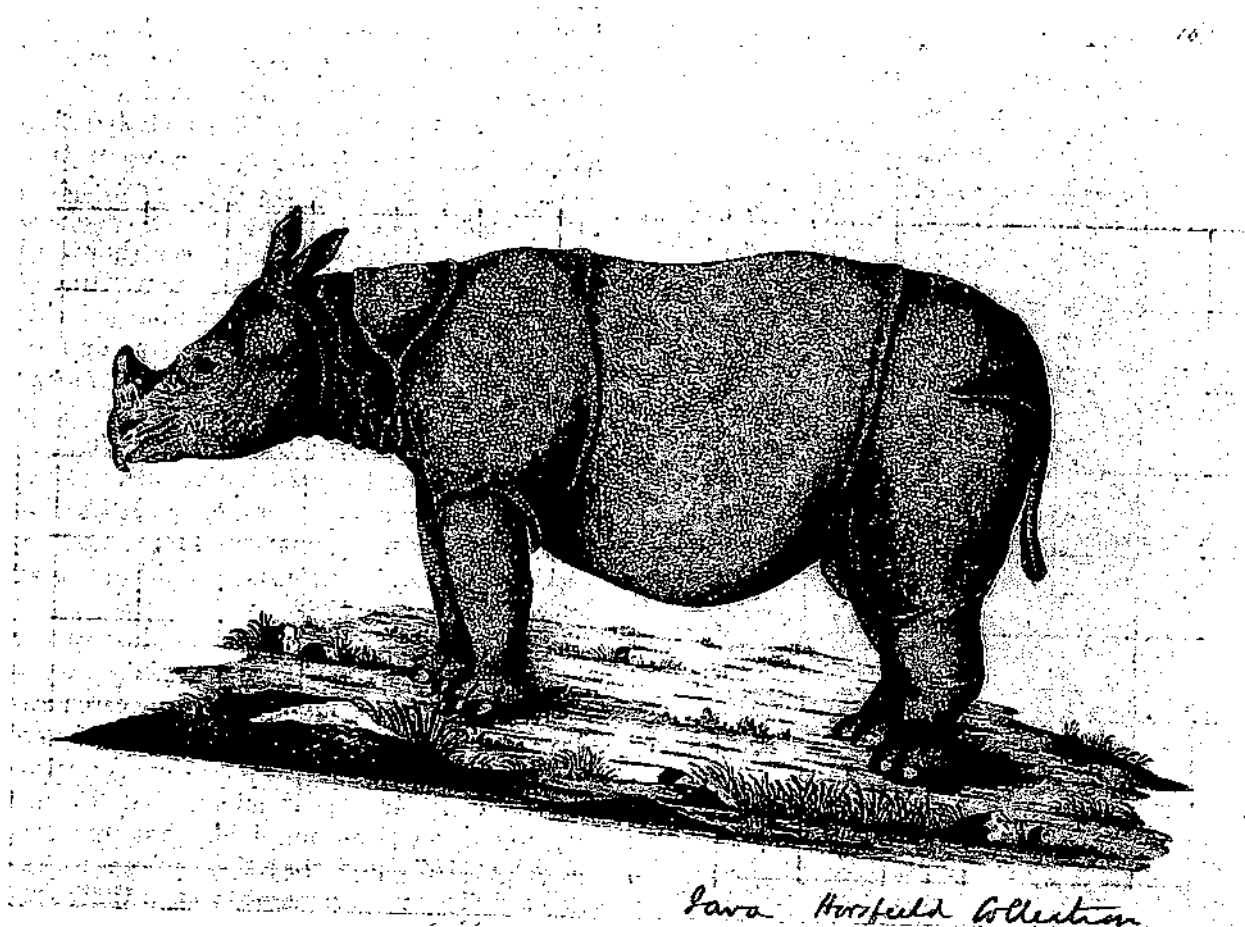


Fig. 73. Horsfield captured a rhinoceros on Java in 1816.

part of Jahangir's empire. It is, of course, quite possible that such rhinos were caught in the Sunderbunds or such nearby areas and transported to hunting sites in other parts of India. However, other miniatures are much less defined. Further study is needed before it can be accepted that, in the days of the Mughal emperors, Javan rhinoceroses were kept in captivity. See Fig. 72.

ca. 1900

There is a postcard in the collection of John Edwards, London, printed in Bombay around the turn of the century (illustrated by Edwards 1996b: 143), clearly showing an example of the Javan rhinoceros, with a nice horn, inside a zoo enclosure. There is no clue as to where this photograph was taken. Several Indian zoos such as Madras, Bangalore, Trivandrum and Calcutta had rhinoceroses in their collections during the last century. With the exception of the Javan rhinos in Calcutta, these are listed under *R. unicornis*, as there is no solid evi-

dence that they belonged to the Javan species.

It is stated below (Malaysia, Dindings) that in September 1905 a young male Javan rhinoceros was caught in Malaysia and traded via Singapore to India. Thereafter, we lose track of this animal too, but it could be the same one as that on this interesting postcard. See Fig. 68.

### Java, Indonesia

#### Various collections

1647

Merklein ([1663] 1930: 13) reported that, in 1647, a young rhinoceros was captured on Java after it had been wounded. It refused to eat and died after a few days.

1648/1654

Rijklof van Goens (1619-1682) led five ambassadors of the Dutch East India Company to

the King of Mataram between 1648 and 1654. He reported on his observations in his *Javaense Reyse*, published in 1666. Mataram is located near Yogyakarta in south central Java. In the country near the court, the King had "ongelooffelijcke groote diergaerden daer hy tot zijn vermaeck ende de jaght besloten hout ettelijcke duysenden herten, rhinocers, wilde koebeesten, ende uytnemende groote stieren.." ["unbelievably large animal enclosures where he keeps, to entertain and to hunt, several thousands of deer, rhinoceroses, wild banteng and remarkably large bulls.."] (Van Goens 1995: 29).

**F 1661**

A female was shown in Batavia in 1661 (Van der Chijs 1889: 289).

**ca. 1720**

A tame rhinoceros was seen in Batavia in the 1720s (Sody 1959: 130 following Valentijn, *Nieuw en oud Oostindien*, 1726).

**1740**

Schwarz (1751: 51) visited the bird and animal garden of the General in Batavia in 1740 and recorded that he saw a rhinoceros.

**F 1786 September 19 – 1786 October 12 †**

**F 1786 September 19 – 1786 October 17 †**  
Johan Arnold Stützer (1763-1821) from Sweden, arrived in Java in 1785. He made several trips through Western Java in 1786 and 1787. He hunted rhinoceroses and other animals in the forests near Cirebon. On 19th September 1786, at a place called Tagal Panjang, Stützer captured both an adult female, after it had been wounded, and its baby (the size of a hog). The mother died in the forest on 12th October 1786. Stützer tried to transport the young rhinoceros to Cirebon, to ship it to Batavia. It was carried in a cage constructed of bamboo. A rope around the neck caused an inflammation during the journey, and the young rhinoceros died on 17th October 1786 before reaching the town (Hoadley and Svanberg 1991: 120 ff.).

**1816 – 1821 †**

Horsfield (1823) recorded a rhinoceros which was captured in the Province of Keddu in 1815 or 1816. It was transported to the Residency at Magellan and from there on a cart to Surakarta. It was kept in a semi-domesticated state near the entrance of the Royal Residence



Fig. 74. London's Javan rhinoceros from 1874-1885, photographed by T. Dixon in 1884.

at Surakarta, probably from the end of 1816 or the beginning of 1817. It was removed from the palace later (due to unpleasant odours) and it died in a nearby village in 1821. The animal was illustrated on a black-and-white plate by Horsfield (1823) after a drawing prepared by William Daniell (reproduced in Rookmaaker 1983a, fig. 9; Bastin 1990: 72). See Fig. 73.

**M 1874**

This male imported to London Zoo in March 1874 had earlier been exhibited 'for some time' at a tea-garden near Batavia.

**London, UK**

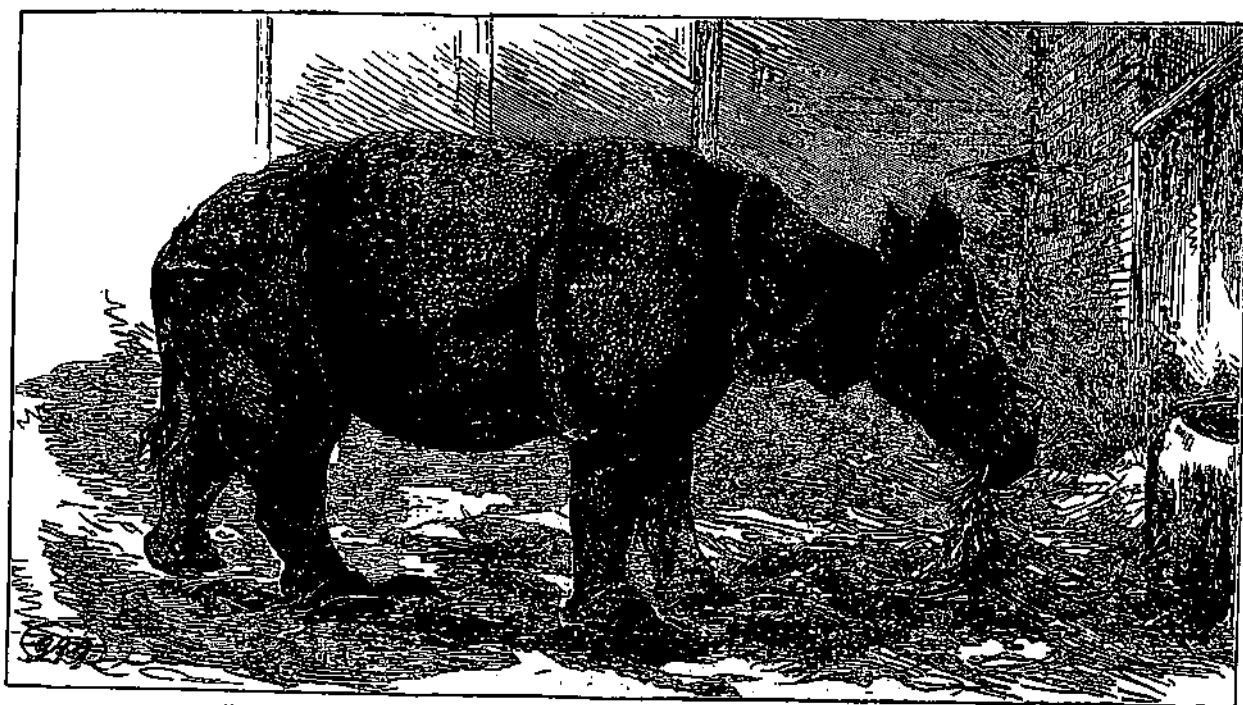
**1. Zoological Society of London**

**M 1874 March 7 – 1885 January 23 †**

This animal was purchased from Messrs Cross and Jamrach for £800. It was obtained in Batavia, "and had been previously for some time in captivity in some tea-garden near the city" (Sclater 1876a: 649). The date of arrival is given as 7th March in Sclater (1874), 1st March in Sclater (1876a). The Daily Occurrence Books of the Zoo confirm that 7th March is the correct date.

Kourist (1969, 1976: 107) published two photographs taken by T. Dixon around 1884 (see Rookmaaker 1982: 6). Edwards (1996a: 126) showed a stereoscopic photograph by Frederick York taken around 1875, and a photograph by T.J. Dixon from 1884. Sclater (1876a, pl. XCVI) illustrated it on a coloured engraving after a watercolour by J. Wolf painted in 1874. Two





THE JAVAN RHINOCEROS ("RHINOCEROS SONDAICUS") AT THE ZOOLOGICAL GARDENS

Fig. 75. Javan rhinoceros in London, from *The Graphic* of 24th May 1874.

other engravings can be found in contemporary magazines: the *Illustrated London News* of 1874 (after a drawing by Bouverie Goddard) and the *Graphic* of 24th May 1874 (see Figs. 74,75).

The animal was dissected by Beddard and Treves (1887), who thereby provided some of the few anatomical details of the species. It was freezing at the time of the animal's death, and they intended to continue with an investigation of the muscles and nerves, but "the frost, however, broke, and the carcass commenced to decay." It seems rather remarkable that the osteological remains (skull and skeleton) were not preserved. They are not in the Natural History Museum, London. It is a matter of conjecture whether its skull is in fact the one preserved in the Manchester Museum, recorded by Cave (1985) and mentioned under 'Manchester' in the chapter on the Indian rhinoceros.

## 2. Jamrach (animal dealer)

### F 1877

Sclater reported at a meeting of the Zoological Society on 6th March 1877 that Jamrach had imported a young *Rhinoceros sondaicus* alive from the Sunderbunds. It had no horn and stood about three feet high. It lived little

more than six months, probably in Jamrach's establishment. Garrod (1877) studied its hide and skull.

## Malaysia

### Dindings

#### M 1905 September

In September 1905, a three-quarters grown male rhinoceros, with a horn of about 2.5-3 inches in length, was caught in a pit-trap in the Dindings, Straits Settlements (O'Hara 1907). It was transported to Penang, and sold to a merchant in Singapore for \$500. O'Hara made further enquiries, "and found out that it had been exported from Singapore to Madras and sold for Rs 1500." O'Hara could not establish whether this was in fact true. No further evidence from India has become available.

It is possible that this is the animal shown on the postcard owned by John Edwards in London (see India). The postcard is not dated, but looks to be from the turn of the century, but 1908-1912 would still be within the bounds of possibility. Unfortunately, this still does not help to identify where the animal was kept, as there is no further evidence.



Fig. 76. Hide of a young Javan rhinoceros sent from the Cape of Good Hope in 1799, preserved at the Natural History Museum in Vienna.

### **Sumatra, Indonesia**

In a footnote to Sody's text (1959: 167), Erna Mohr mentioned that there was a rumour of two young Javan rhinoceroses having been caught in Sumatra in 1959. This statement must refer to the two Sumatran rhinos captured for Ryhiner in that year (see *D. sumatrensis*, Sumatra).

where they are still preserved today (Antonius 1937, fig. 6). According to the museum records, it was a 14-month-old male (NMW 8198/St.319). See Fig. 76.

### **Vienna, Austria**

#### *Schönbrunner Tiergarten*

#### *M 1799*

Around 1799, a young Javan rhinoceros was shipped by Georg Scholl from the Cape of Good Hope in South Africa to Vienna. It died on the way. It is not clear how this animal had been obtained, but it seems likely that it somehow had been sent from the East and bought in Cape Town. The remains were given to the Natural History Museum in Vienna in 1801,

6. The Sumatran rhinoceros (*Dicerorhinus sumatrensis*)

There have been 96 Sumatran rhinoceroses in captivity. The first specimen to be seen in Europe arrived in January 1872 at Hamburg, Germany. In fact, in 1872 no less than seven specimens arrived at various collections around the world, including two destined for American circuses. There was a relatively large number of Sumatran rhinos in captivity between 1872 and 1909, with 48 animals being imported from the wild. In 1885, there were nine specimens in captivity at the same time. By the end of 1916, all these animals had died. After this date, only a few Sumatran rhinos were imported, until in 1959 when five specimens were caught in Sumatra. Of these, only one female survived for several years at Copenhagen Zoo, but she died in 1972. In 1984, both a private initiative and an international programme, intending to conserve the species through captive breeding, were initiated and, from that year until 1993, about 32 Sumatran rhinos were caught in Malaysia, Sumatra and Borneo (Sabah). Only one birth was recorded. In 1991, there were 23 specimens simultaneously in various collections.

Earlier lists and the Studbook

Reynolds (1961a) collected information on the animals exhibited until that time. Information on recent imports was collected by Thomas J. Foose and Zainal Zahari Zainuddin and was presented on 10th September 1991 as a draft for an International Studbook for Sumatran Rhino. They recorded 33 animals, and provided each with a simple studbook number. In 1994, Foose issued two versions of the definitive international studbook for the Sumatran rhinoceros. In the latter version (31st December 1994), he listed 40 specimens, of which 23

(9/14) were alive at the time (Foose 1994b). Up until the end of 1994, captive breeding efforts were not successful. At that time, there were five collections around the world with at least one male and one female. From Stuart (1994), speaking for the IUCN/SSC, it appeared that hope had already been given up, since he wrote that “unfortunately, the safeguard of captive breeding has not been successful for this species”. However, he added in the caption to the accompanying photograph that “soon zoos may be the only place these animals can be found”. Until now, the Sumatran rhinoceros has only produced four young in captivity, of which only one was zoo-bred (see below).

Longevity

The Sumatran Rhinoceros has not reached an exceptional age in captivity. Just over half the specimens lived for over one year, and only seven reached the age of ten years (Table 26,27).

Table 26. Average longevity

Years in captivity	Imported animals		Captive births	
	No.	%	No.	%
0	30	31	1	25
1- 9	54	60	1	25
10-19	6	7	1	25
20-29	2	2	1	25

Origin of imports

Three subspecies are recognized at this time (Groves 1993): the typical *Dicerorhinus s.*

Table 27. Longevity of captive Sumatran rhinos dying in captivity

Sex	Place	Dates	Age		Total in days
			years	months	
Female	London	14 February 1872 – 31 August 1900	28	6.5	10,425
Male	London	April 1884 – 22 November 1910	26	8	9,730
Male	Calcutta	30 January 1889 – June 1913 (?)	24	5	8,887

*sumatrensis* in Sumatra and Malaysia, *D.s. harrissoni* on Borneo, and *D.s. lasiotis* in Thailand, Myanmar, Bangladesh and N.E. India. Amato *et al.* (1995) studied mitochondrial sequences in 17 specimens from Sumatra, Malaysia and Borneo. This showed that there was no special reason to support more than one conservation unit, so all captive specimens could be mixed in breeding programmes. Most of the animals in captivity came from Sumatra and Malaysia.

Country	Total	Subspecies
Bangladesh	2	<i>lasiotis</i>
Borneo	10	<i>harrissoni</i>
Malaysia	27	<i>sumatrensis</i>
Myanmar	2	<i>lasiotis</i>
Sumatra	30	<i>sumatrensis</i>
Unknown	25	
Total	96	

# Births in captivity

The first Sumatran rhinoceros was born on board ship in London harbour as early as 1872. The female was pregnant when she was caught. The baby could not survive the rather difficult conditions and died within a few days. Another wild-bred female gave birth on a ship while it was in Calcutta in 1885. The third captive birth occurred in 1889 at Alipore Zoo in Calcutta, India, which was a remarkable achievement since the parents had been in the zoo together since 1882. Almost a century later, in 1987, a fourth baby was born, again from a wild-bred female, in the zoo at Melaka, Malaysia.

Table 28. Collections where the Sumatran rhinoceros has been exhibited (1872-1994), arranged by country in each continent

Country	Total places	Year and place of first rhino	Largest (>5) No. (Zoo + total No.)
<i>Asia</i>			
Afghanistan	1	1888 Kabul	
India	3	1882 Calcutta	
Indonesia	11	1641 Private	
Japan	1	1921 Osaka	
Malaysia	3	1930 Private	Melaka: 14
Myanmar	2	1859 Theybo	
Singapore	1	1875 Botanical Garden	
Thailand	1	1986 Bangkok	
Total: 8 countries, 23 collections. First import 1641 into Indonesia			
<i>Australia</i>	1	1902 Perth	
Total: 1 country, 1 collection. First import 1902 into Australia			
<i>Europe</i>			
Austria	1	1900 Vienna	
Belgium	1	1878 Antwerp	
Denmark	1	1959 Copenhagen	
France	1	1885 Paris	
Germany	6	1872 Hamburg Zoo	
Hungary	1	1894 Budapest	
Netherlands	1	1881 Amsterdam	
Poland	1	- Wroclaw	
Switzerland	1	1959 Basel	
UK	4	1872 London (Show)	London: 9
Total: 10 countries, 18 collections. First import 1872 into UK			
<i>North America</i>			
<i>USA</i>			
Various	1	1872 Circus	
California	2	1988 Los Angeles/San Diego	
D.C.	1	1893 Washington	



Country	Total places	Year and place of first rhino	Largest (>5) No. (Zoo + total No.)
New York	1	1902 N.Y. Bronx	
Ohio	1	1989 Cincinnati	
Pennsylvania	1	- Philadelphia	
Total: 1 country, 7 collections. First import 1872 into USA			
World Total	20 countries, 49 collections		

Table 29. Population changes in the Sumatran rhinoceros between 1600 and 1994. Numbers show total (male/female/sex unknown)

Period	Imported animals	Captive births	Deaths	Total animals at end of period	Captive born population
1600-1699	1 (0/0/1)		1 (0/0/1)	0	
1850-1869	1 (0/0/1)		1 (0/0/1)	0	
1870-1879	12 (2/7/3)	1 (0/1)	11 (2/6/3)	2 (0/2)	
1880-1889	13 (3/4/6)	2 (1/1)	13 (2/5/6)	4 (2/2)	2 (1/1)
1890-1899	9 (0/5/4)		7 (0/3/4)	6 (2/4)	1 (1/0)
1900-1909	6 (1/3/2)		6 (0/4/2)	6 (3/3)	1 (1/0)
1910-1919	0		5 (3/2)	1 (0/1)	
1920-1929	2 (0/1/1)		3 (0/2/1)	0	
1930-1939	2 (0/1/1)		2 (0/1/1)	0	
1940-1949	0		0	0	
1950-1959	7 (2/5)		4 (2/2)	3 (0/3)	
1960-1969	0		2 (0/2)	1 (0/1)	
1970-1979	0		1 (0/1)	0	
1980-1989	26 (10/16)	1 (0/1)	9 (5/4)	18 (5/13)	1 (0/1)
1990-1994	13 (8/5)		11 (6/5)	20 (7/13)	1 (0/1)
Total	92 (26/47/19)	4 (1/3)	76 (20/36/20)		

Chronological list of all known specimens of Dicerorhinus sumatrensis in captivity

This list presents all known (and possible) specimens of the Sumatran rhinoceros in captivity, in chronological order. The first column ‘Studbook No.’ gives the number of the animals in Foose’s studbook (1994b) on 31st December 1994. The second column is ‘Status’ (W: imported from the wild; B: born in captivity; B+: captive stillbirth). The third column gives the ‘Sex’ of the animal (M: male; F: female, no indication: sex unknown). The final column ‘History’ starts with the year in which the animal was imported/born, followed by the place where the collection was located, and other collections with the years of transfer; if the entry ends with the name of a collection, the animal is presumed to be alive; if the line ends with a year, it died at that time.

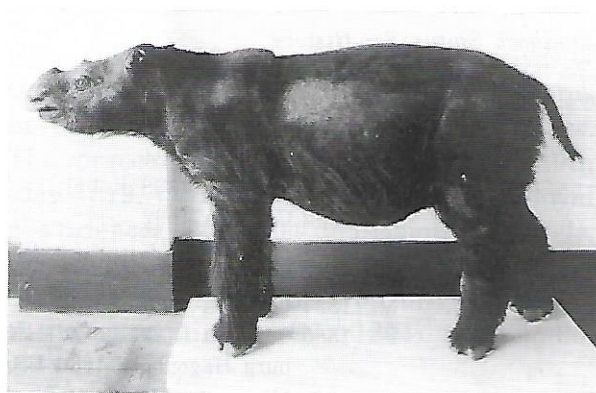
Studbook No.	Status	Sex	History
W			1641 Sumatra, Atjeh 1641
W			1859 Theyboo 1859
W	F		1872 Hamburg 1876
W	F		1872 London 1900
W	F		1872 London 1872
B	F		1872 London Docks 1872
W	F		1872 London Docks 1872
			USA (?)
W			1872 USA: Barnum 1873
W			1872 USA: Forepaugh 1875
W	F		1875 London 1877
W			1875 Singapore (?)
W	F		1878 Antwerp 1878 Berlin 1880
W	F		1878 London 1879
			Antwerp 1879
W	M		1879 Antwerp 1879
W	M		1879 London 1879
W			1880 USA: Robinson 1887
W			1881 Amsterdam 1881
W			1881 USA: Barnum 1886





*Fig. 77.* Los Angeles Zoo's female Sumatran rhinoceros 'Augustina' in July 1990.





↑

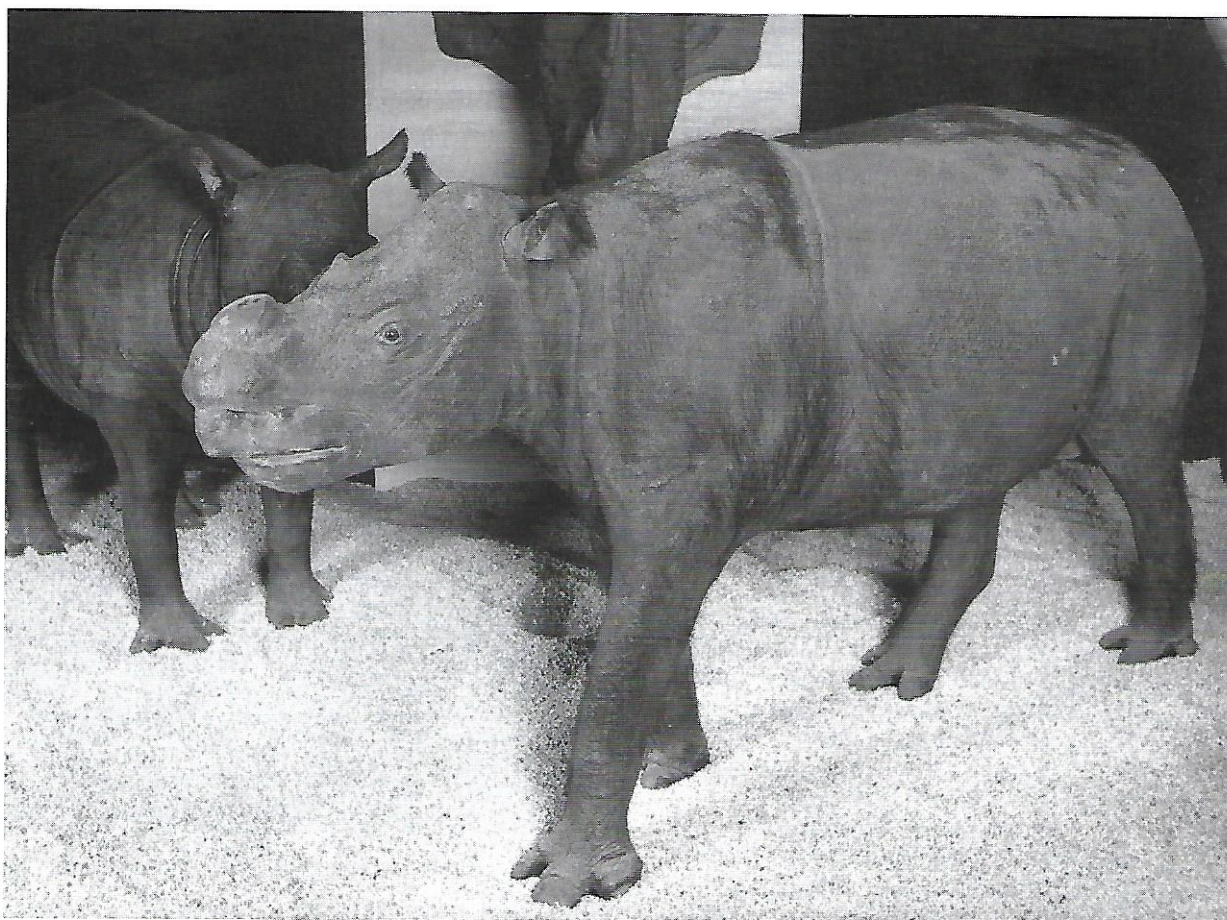
*Fig. 79.* Amsterdam's Sumatran rhinoceros from Borneo in 1896, now mounted at the Zoological Museum of Amsterdam.

←

*Fig. 78.* One of the Sumatran rhinos in Bogor in 1995. The long drooping hair on the ear fringes makes it a typical example of the *lasiotis* type.

*Fig. 80.* Hide of a male Sumatran rhinoceros shown at Antwerp Zoo in 1879 in Brussels.

↓





*Studbook Status Sex History*  
No.

	W	F	1882 Calcutta 1884
	W	M	1882 Calcutta 1888 Kabul (?)
	W	F	1882 Calcutta 1892
	W		1884 Hamburg (?)
	W		1884 Hamburg (?)
	W	M	1884 Calcutta 1886 London 1910
	W	F	1885 Calcutta Docks 1885 Hamburg Hagenbeck 1886 USA (?)
	B	F	1885 Calcutta Docks 1885 Hamburg Hagenbeck 1886 USA (?)
	W	M	1885 London 1885
	W	F	1885 London 1888
	W		1885 Paris 1887
	B	M	1889 Calcutta 1913
	W	F	1890 USA: Forepaugh 1893 Washington 1896 USA: Forepaugh (?)
	W		1894 Budapest (?)
	W		1894 Leipzig 1895
	W	F	1895 Antwerp 1903
	W		1895 Germany: Ehlbeck (?)
	W		1895 Stuttgart (?)
	W	F	1896 Amsterdam 1896
	W	F	1898 London 1900
	W	F	1899 Madras 1913
	W	F	1900 Singapore 1900 Vienna 1910
	W	F	1901 Singapore 1902 Vienna 1920
	W	F	1902 New York Bronx 1902 USA: Ringling 1908
	W		1902 Perth (?)
	W		1904 Liverpool (Cross) 1904
	W	M	1909 Yangon 1916
	W		1921 Osaka 1925
	W	M	1928 Sumatra: Poser 1928
	W	F	1930 Sumatra: Coenraad 1930
	W		1930 Malaysia: Rajah of Jelevu (?)
	W	M	1952 Transit to Philadelphia 1952
	W	F	1952 Transit to Philadelphia 1952
	W	F	1959 Basel 1961
	W	F	1959 Bogor 1961
	W	F	1959 Copenhagen 1972
	W	M	1959 Sumatra Capture 1959
	W	F	1959 Sumatra Capture 1959
01	W	F	1984 Melaka
02	W	M	1984 Melaka 1984
03	W	F	1985 Melaka 1986 Bangkok 1986
07	W	F	1986 Melaka
04	W	M	1986 Port Lympne
08	W	M	1986 Jakarta 1994
11	W	F	1986 Melaka 1989

*Studbook Status Sex History*  
No.

10	W	F	1986 Port Lympne 1986
12	W	F	1986 Melaka 1987 Jakarta
05	W	M	1986 Sumatra: Torgamba 1986
13	W	F	1987 Melaka
09	W	M	1987 Melaka 1987
15	B	F	1987 Melaka
16	W	F	1987 Melaka 1988
19	W	F	1987 Melaka
14	W	M	1987 Sepilok 1987
17	W	M	1987 Sepilok 1992
20	W	M	1988 Melaka
18	W	F	1988 Port Lympne 1994
06	W	M	1988 Surabaya 1993
21	W	M	1988 Sepilok 1988
23	W	F	1988 Melaka
22	W	F	1988 Bogor Safari 1993
24	W	F	1988 Los Angeles 1989 Cincinnati 1992
25	W	F	1988 San Diego 1995
26	W	F	1989 Sepilok
27	W	F	1989 Los Angeles 1990 New York Bronx 1993 Cincinnati
28	W	M	1991 San Diego 1991 Cincinnati
31	W	M	1991 Sepilok 1995
30	W	M	1991 Bogor Safari
32	W	F	1991 Bogor Safari
29	W	F	1991 Los Angeles 1995 Cincinnati
33	W	F	1991 San Diego 1992
34	W	F	1992 Surabaya
36	W	M	1992 Sepilok
35	W	M	1992 San Diego 1995
37	W	M	1993 Tabin Reserve (released)
38	W	M	1993 Sepilok
40	W	F	1994 Sepilok
39	W	M	1994 Melaka

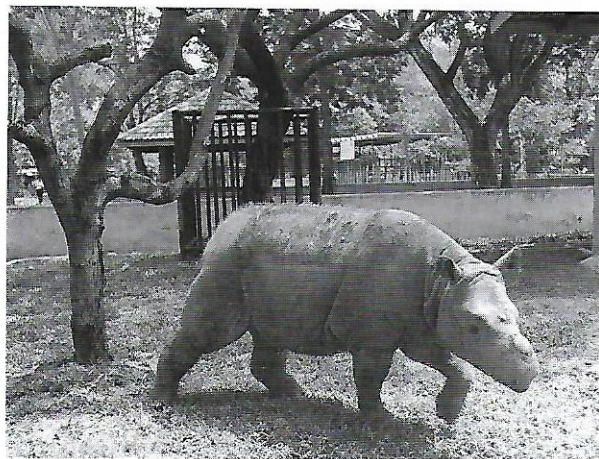


Fig. 81. Sumatran rhinoceros in Bangkok, February 1986.



## List of specimens of *Dicerorhinus sumatrensis* in captivity

### Amsterdam, The Netherlands

Zoological Gardens 'Natura Artis Magistra'  
Artis Zoo

1881 April 18 – 1881 November 11 †

In his historical list of species exhibited in Artis, Swierstra (1888: 19) stated that the first Sumatran rhinoceros arrived in 1881. It was probably imported from Sumatra (Rookmaaker and Reynolds 1985: 143, from zoo archives). The history and sex of the animal are otherwise unknown. No remains are to be found in the Zoological Museum of Amsterdam.

F 1896 June 1 – 1896 December 16 †

Date of arrival was recorded in the zoo archives. The animal was bought from H. Owen for 2400 guilders. A note on its hide preserved at the Zoological Museum of Amsterdam identifies W.J. Krolin of Singapore as the dealer. It was shipped on the SS *Telemachus* from Borneo. Apparently, this is the only rhinoceros that was ever exported from Borneo, belonging to the subspecies *Dicerorhinus sumatrensis harrissoni* (Groves, 1965). Sclater (1896: 784) said that he saw in the zoo a "young female *R. sumatrensis* from Borneo". The skeleton and stuffed hide are preserved at the Zoological Museum of Amsterdam, Nos. 539 (skull) and 7001 (hide, illustrated by Rookmaaker 1984a, fig. 7). The specimen is 175 cm long and 89 cm high. See Fig. 79.

### Antwerp, Belgium

Société Royale de Zoologie d'Anvers  
Jardin Zoologique

The Antwerp Zoo actively engaged in the trade of animals. Each year they held at least one important auction at the gardens (Loisel 1912, III: 290-291, Baetens 1993: 94). See Fig. 82.

F 1878

The Berlin Zoo received a female Sumatran rhinoceros on 21st November 1878, bought at an auction at Antwerp. There is no other information about the arrival or origin of the specimen.

M 1879

Gijzen (1960: 16) gave the year of arrival of the first specimen of the Sumatran rhinoceros in Antwerp as 1879, but added no particulars. The source of this information is that, on 19th May 1879, the Museum of the Institut Royal des Sciences Naturelles de Belgique, Brussels, received from the zoo the hide and skeleton of a male Sumatran rhinoceros, originally from the coast of Sumatra (No. 1204). See Fig. 80.

1879

Apart from the male specimen preserved in Brussels (previous entry), there was possibly another Sumatran rhinoceros at the zoo in the same year. The Muséum National d'Histoire Naturelle, Paris also received one Sumatran Rhinoceros (sex not stated) from Antwerp Zoo in 1879 (No. 2122). The specimen is still in existence (Marvin Jones, in litt.). It could be the female deposited by Jamrach in London from October 1878 to March 1879, and then shipped with no definitely known destination. If it was the same animal, it was a female.

F 1895 – 1903 (?)

A Sumatran rhinoceros was illustrated in an undated *Guide Illustré*, which probably appeared ca. 1895. On a sheet dated 16th August 1898, the Zoological Society advertised the next annual sale, to be held on Tuesday and Wednesday, 13th and 14th September 1898. Among the animals offered for sale, they listed 'Le Rhinocéros de Sumatra, femelle (*R. sumatrensis*).’ The outcome of the sale is not available, but the animal possibly remained unsold, as a rhinoceros was present in 1899 (Epstein 1899: 11) and in 1902 (Knottnerus-Meyer 1902: 185, Peel 1903: 61). The same animal (?) was mentioned in a guidebook from 1903, but was absent in a guidebook dated around 1910.

### Bangkok, Thailand

Dusit Zoo

F 1986 July – 1986 November 23 †

'Linchong' (=Flower).

St.03

This animal was caught on 18th April 1985 in Perak, Malaysia and kept at Melaka Zoo. It



1890

# Société Royale de Zoologie d'Anvers

## GRANDE VENTE PUBLIQUE D'ANIMAUX

ANVERS, LE 16 AOÛT 1898.

L'Administration fera procéder les Mardi et Mercredi, 13 et 14 Septembre 1898, de 10 heures du matin à 5 heures de relevée, au local de la Société, à la vente annuelle d'ANIMAUX, tels que :

### MAMMIFÈRES :

Deux Orangs-outangs (*Simia satyrus*).  
Singes divers.  
Lémuriens divers.  
Un Lion du Sénégal, importé, 20 mois d'âge (*Felis leo*).  
Une Lionne du Sénégal, importée, 20 mois d'âge.  
Trois Panthères mouchetées de l'Inde, adultes, mâles, importées (*Felis pardus*).  
Une Panthère mouchetée de l'Inde, adulte, femelle, importée.  
Deux Panthères mouchetées de l'Inde, jeunes, mâle et femelle.  
Deux Panthères noires, mâle et femelle, adultes.  
Un Caracal (*Felis caracal*).  
Un Puma femelle, importé, 2 à 3 ans d'âge (*Felis concolor*).  
Un Puma femelle, jeune, importé.  
Deux Hyènes rayées, jeunes, mâle et femelle (*Hyena striata*).  
Deux Ratons laveurs, jeunes (*Frogion lotor*).  
Deux Coatis, adultes, mâle et femelle (*Nasua rufa*).  
Deux Ours bruns, jeunes (*Ursus arctos*).  
Deux Ours malais, jeunes (*Ursus malayanus*).  
Plusieurs Phoques communs (*Phoca vitulina*).  
Plusieurs Ecrevisses de Prevost (*Sciurops prevosti*).  
Un Ecrevisse de Malabar (*Sciurops maximus*).  
Un Porc-épic à queue prenante (*Sphingurus prehensilis*).  
Plusieurs Agoutis dorés (*Dasyprocta aguti*).  
Un Capybara, mâle (*Hydrochaeris capybara*).  
Un Elephant de l'Inde, mâle; hauteur : 1m15 (*Elephas indicus*).  
Un Rhinoceros de Sumatra, femelle (*Rhinoceros sumatrensis*).  
Un Tapir du Brésil, mâle, adulte (*Tapirus americanus*).  
Un Gayal, femelle, né au local le 6 Juin 1898; à livrer en Octobre (*Bos frontalis*).

Un couple de Faisans prélat, adultes (*Euplocamus prelatus*).  
Un " " de Swinhoe, " (*" swinhoi*).  
Un " " de Vieillot, " (*" vieillotii*).  
Un " " nobles, " (*" nobilis*).  
Un " " à queue havane, " (*" erythrophthalmus*).  
Un " " argentés, " (*" nycthemerus*).  
Un " " de Raynaud, " (*" lineatus*).  
Un " " Trapogans satyres, " (*Cerionis satyrus*).  
Un " " de Temminck, " (*" temminckii*).  
Un " " de Cabot, " (*" caboti*).  
Un " " Paons ordinaires, " (*Pavo cristatus*).  
Un " " panachés, " (*" nigripennis*).  
Un " " nigripennes, " (*" spicifer*).  
Un " " spicifères, " (*" "*).  
Plusieurs mâles de Paon spicifère, " (*" "*).  
Un couple d'Eperonniers Chinois, " (*Polyplectron chinensis*).  
Deux couples d'Argus géants, " (*Argus giganeus*).  
Plusieurs mâles d'Argus géant, " (*" "*).  
Un couple de Pintades vulturines (*Namida vulturina*).  
Divers Hoccoes (*Crax*).  
Un couple de Perdrix des Bambous (*Bambusicula thoracica*).  
Plusieurs couples de Francolins d'Abyssinie (*Pternistes infusatus*).  
" " " Collins de Californie (*Callipepla californica*).  
Plusieurs Pigeons frugivores blancs (*Carpophaga bicolor*).  
Plusieurs Colombes poignardées (*Phlogothanas cruentata*).  
" " Nicobar (*Calenas nicobarica*).  
" " Lumachelles (*Phaps chalcoptera*).  
" " Mouettes (*Columba leucostola*).  
" " Tigres (*" gunia*).  
" " Mouchetées (*Columb; maculosa*).

Fig. 82. Part of a poster advertising the 1898 auction in Antwerp.

was a present from Sultan Iskander, King of Malaysia, to King Bhumipol of Thailand (Meckvichai 1987). While the studbook states its arrival in Bangkok in July 1986, it probably came earlier, as Esmond Martin took a photograph of the animal at the end of February 1986. It died after an accidental fall in its cage. Photographs of this specimen were published by Pitman (1991: 30) and Esmond Bradley Martin in *Pachyderm*, 15: 53 (1992). See Fig. 81.

### Basel, Switzerland

#### Zoologischer Garten

F 1959 July 2 – 1961 September 8 †

'Betina'

Caught near Buatan, Sumatra on 17th March 1959, and kept there as a pet by Harry Gill-

more [cf. Sumatra, Gillmore]. It was bought by Peter Ryhiner (animal dealer) and transported via Singapore, leaving on 30th June 1959 (see pictures in Rookmaaker and Reynolds 1985, figs. 4-6). Photographs taken in Basel were published by Lang (1959), Anonymous (1959), Grzimek (1960, fig. 2) and Klös (1987: 23). It died of chronic nephritis. The anatomy of the viscera was described by Cave and Aumonier (1962, 1963). The remains are at the Zoological Museum of Basel (NMB 10259); the skull is quite small (Groves 1982: 258). See Fig. 83.

### Berlin, Germany

#### Zoologischer Garten

F 1878 November 21 – 1880 March †

This animal was bought in Antwerp by Heinrich Bodinus (1814-1884), director of the



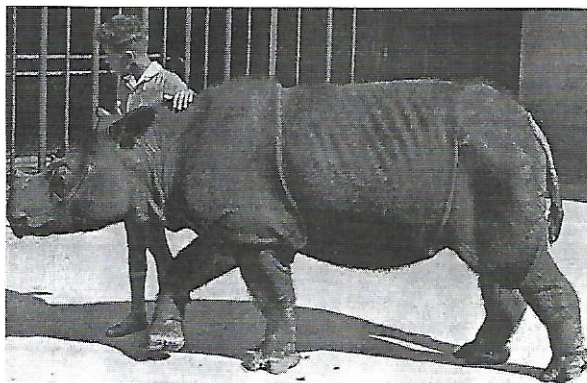


Fig. 83. Sumatran rhinoceros in Basel in 1959.

zoo. The money was donated by Barons Arthur and Ferdinand von Schickler. It died due to a festering lung (Schlawe 1969: 28). This should be the specimen recorded in Reynolds (1961a: 35) which would have lived for only six months in 1879. It is probably this specimen which was depicted by G. Mützel 'nach dem Leben' as published by Heck (1896: 1020). See Fig. 84.

## Bogor, Indonesia

### 1. Grounds of Presidential Palace

*F* 1959 (summer) – 1961 August 8 †  
Caught by the Danish expedition on the Siak River in Sumatra, and presented to President Sukarno. Medway (1972) published a picture. The skull can be seen in the Bogor Museum (MZB 8440), not quite mature (Groves 1982: 258).

### 2. Taman Safari Indonesia

The animals are kept in an open enclosure of about 1800 m<sup>2</sup> (Prasetyo and Noordin 1993). See Figs. 78, 165.

*F* 1988 November 30 – 1993 July 27 †  
'Dalu' St.22  
Caught in Torgamba, Sumatra, on 8th July 1988.

*M* 1991 September 2 –  
'Romi' St.30  
Caught in Torgamba, Sumatra, on 18th April 1991.

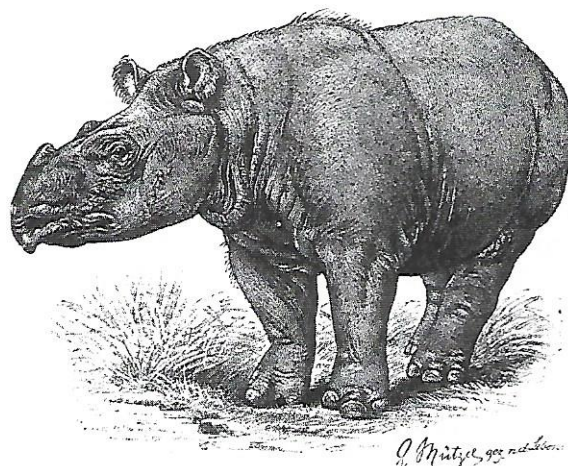


Fig. 84. Drawing by G. Mützel from a specimen in Berlin.

*F* 1991 September 2 –  
'Bina' St.32  
Caught in Torgamba, Sumatra, on 17th May 1991.

## Budapest, Hungary

### Zoological Gardens

The zoo was founded in 1865 (Peel 1903: 168) and bought by the municipality of Budapest in 1907 (Loisel 1912, III: 110).

1894

This specimen travelled from Penang, Malaysia via Trieste, together with the animal which arrived in Leipzig in 1894 (Anonymous 1895). It was not noticed by Peel (1903) when he visited the zoo in 1902. No further particulars.

## Calcutta, West Bengal, India

### 1. Alipore Zoological Gardens

In 1883, the rhinoceros enclosure measured 229 × 116 feet. There was a tank of 165 feet long and 30-40 feet wide (Anderson 1883: 73).

In his catalogue of specimens in the Indian Museum, Calcutta, W.L. Sclater (1891: 205, Nos. e, s) listed two skeletons of *R. sumatrensis* donated by the Zoological Gardens in 1889. It is not clear which specimens these would have been. These two skeletons are no longer in the Zoological Survey collection in Calcutta (Groves and Chakraborty 1983).



*M* 1882 June – 1888

This animal was imported from Malaysia, together with the following female (Anderson 1883: 74). It was the father of the calf born in 1889. It went to Amir Abdul Rahmann of Kabul, Afghanistan (Buckland 1889), probably at the end of 1888, but there it was lost from view. Sanyal (1892: 132) stated, in general terms, that the length of life of *R. sumatrensis* would be from 1882 to 1889.

*F* 1882 June – 1883/1884 (?) †

This female came together with the male from Malaysia. In 1882, the zoo obtained a “young female *lasiotis* [next entry] and a pair of adult *sumatrensis*” (Sanyal 1892: 132). The three animals are also mentioned by Anderson (1883: 74). This female probably only lived for a short time. It may be the animal referred to by Sanyal (1892: 134) which died of tuberculosis of the lungs and liver.

*F* 1882 June – 1892 (?) †

‘Muni Begum’.

This animal was caught on the estate of Begum Latifa Khatum of Ramu (Anderson 1883, Sclater 1884). Ramu is a small town west of Cox Bazar, Chittagong, S.E. Bangladesh. It was believed to be a specimen of *Rhinoceros lasiotis*. It was the mother of the calf born in 1889, and it was still alive in 1892 (Sanyal 1892: 132).

*M* 1884 April/June – 1886 (January ?)

This young male was captured in the Bassein District of Burma (an area just west of Rangoon), “close to the sea, and, when first seen by its captors, it was in company of its mother. The mother, however, escaped, I was told, by plunging into the sea and swimming away, leaving her young one behind” (Flower 1886).



Fig. 85. Male Sumatran rhinoceros ‘Bagus’ in Cincinnati in 1994.



Fig. 86. Cincinnati’s male ‘Mahatu’ exhibited from 1989–1992.

The animal arrived in Rangoon on 27th March 1884. It was sent to Calcutta Zoo, and then, in exchange, to London Zoo, where it arrived on 27th April 1886 (Flower 1886).

*M* 1889 January 30 – 1913 (?)

Born to the Malaysian male of 1882 and the Chittagong female ‘Muni Begum’ (Sanyal 1892: 133). The birth was announced in the *Englishman* newspaper from Calcutta (Buckland 1889): “Rhinoceros. – At the Zoological Garden, Alipore, on the 30th January, *Rhinoceros Lasiotis*, the wife of *Rhinoceros Sumatrensis*, of Caboul, of a son.”

Sanyal (1892: 133) described the circumstances of the birth. It was still present in June 1913 (Flower 1914: 57).

## 2. Calcutta Harbour

*F* 1885 February – 1885*F* 1885 February – 1885 (Birth)

Noack (1886) mentioned a female, which gave birth in Calcutta while in transit in February 1885. Both animals were shipped to Hagenbeck in Hamburg, Germany, and later sold to Barnum in the USA. See Fig. 90.

## Cincinnati, OH, USA

## Cincinnati Zoo

*F* 1989 June 5 – 1992 May 10 †

‘Mahatu’

St. 24

From Los Angeles. Ehrlinger (1993: 106) published a photograph. See Fig. 86.



<i>M</i> 1991 October 25 – 'Bagus'	<i>St.</i> 28
From San Diego. See Fig. 85.	
<i>F</i> 1993 February 6 – 'Rapunzel'	<i>St.</i> 27
From New York Bronx.	
<i>F</i> 1995 August 4 – 'Embam'	<i>St.</i> 29
From Los Angeles.	

**Cologne, Germany**

*Zoologischer Garten Köln*

*ca.* 1875

It is rumoured that a rhinoceros of this species was shown in Cologne somewhere between 1863 and the end of the century (Reynolds 1961a: 36, Kohle 1981: 104). It is not clear on what evidence this record is based. If a rhinoceros was shown in Cologne around that time, it could also have been part of a travelling menagerie.

1936

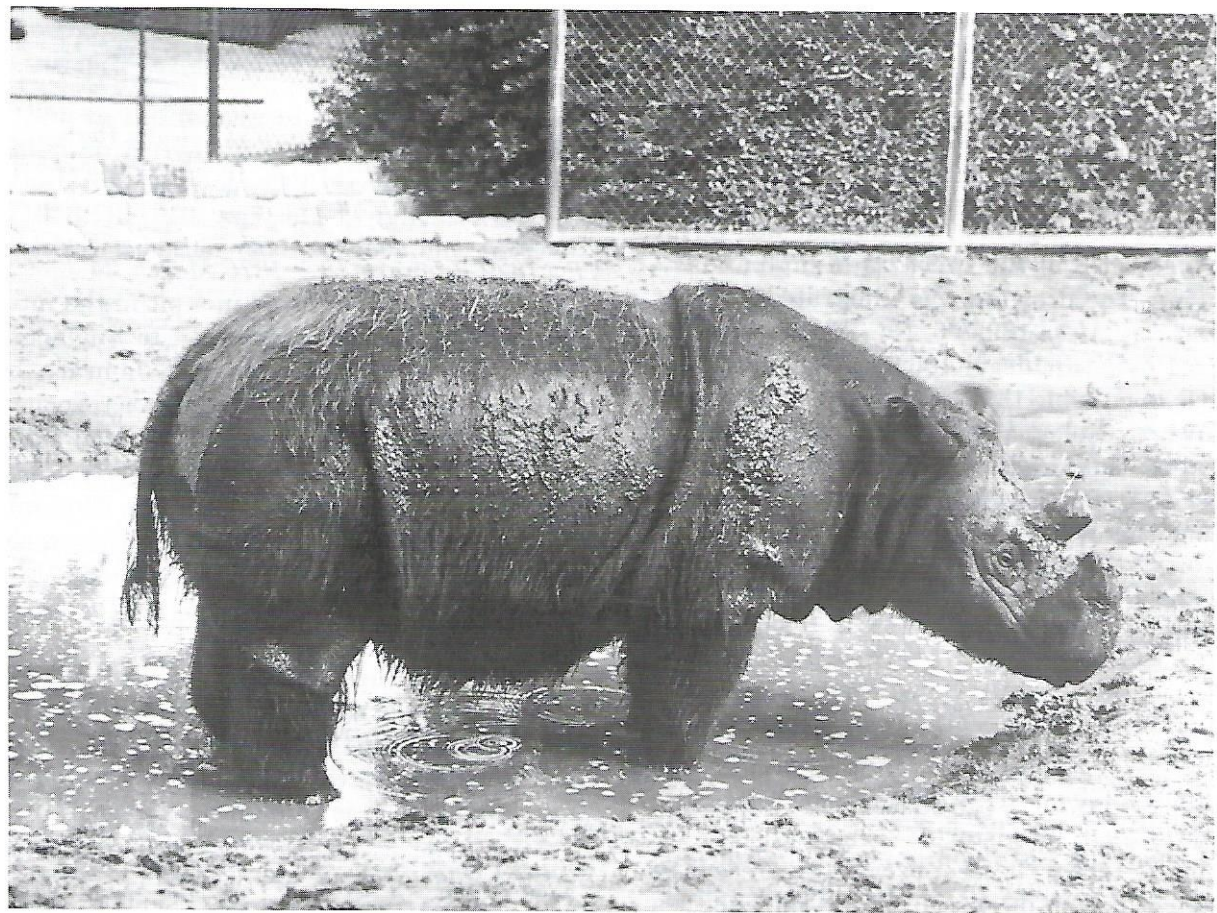
Kohle (1981: 104, according to W. Roelvinck) stated that, in 1936, the animal dealer Schulz exhibited a rhinoceros, probably Sumatran, for a short time in Cologne at an exhibition. The zoo director, G. Nogge (in litt. December 1993), however, writes that the available evidence is very slim and considerable care should be taken when accepting this statement.

**Copenhagen, Denmark**

*Zoologiske Have*

*F* 1959 December 4 – 1972 February 24 †  
'Subur'

This animal was caught on the Siak River, Sumatra, by a Danish expedition (Andersen 1963, Skafte 1964). Subur lived for a long time as the only Sumatran rhinoceros in captivity. Its behaviour was studied by Sonne-Hansen (1972, with illustrations) and by Krumbiegel (1965, with many illustrations). The animal died after 12.5 years in the zoo. The remains



*Fig. 87.* 'Subur', for many years the only Sumatran rhinoceros in captivity, at Copenhagen Zoo.



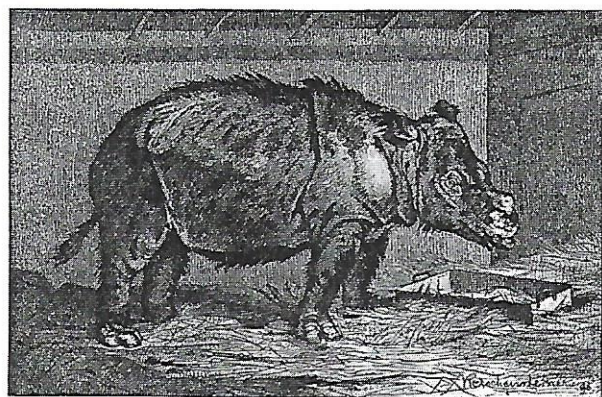


Fig. 88. Rhinoceros in Ehlbeck's Menagerie, drawn by J. Kerschensteiner in 1895.

are preserved at the Natural History Museum in Copenhagen (No. 3791). Meinertz (1974) studied the kidney. See Fig. 87.

## Germany

### *Ehlbeck Wanderschau*

This was a travelling menagerie. I have been unable to find any information about the extent and operation of this show.

1895

There is a drawing by Jos. Kerschensteiner dated 1895 of a Sumatran rhinoceros exhibited with a travelling menagerie owned by Ehlbeck (see Fig. 88). The animal was about ten years old at the time, 1.3 m high and 2.2 m long. The drawing was illustrated in *Über Land und Meer* 1895/96, No. 7, p. 120 (reproduced by Krumbiegel 1960: 13, fig. 1).

It is possible that this is the same animal shown in Cologne in the second half of the 19th century, and also the one seen in Stuttgart in 1895. No information was recorded about the owner in those cases.

## Hamburg, Germany

### 1. Zoologischer Garten

This zoo was opened in 1860 and closed in 1930. Schlawe (1972) gives some interesting details about its history. Grzimek (1958: 120) remarks that a rhinoceros calf was present in 1885, which is discussed under Hagenbeck's establishment in Hamburg, below.

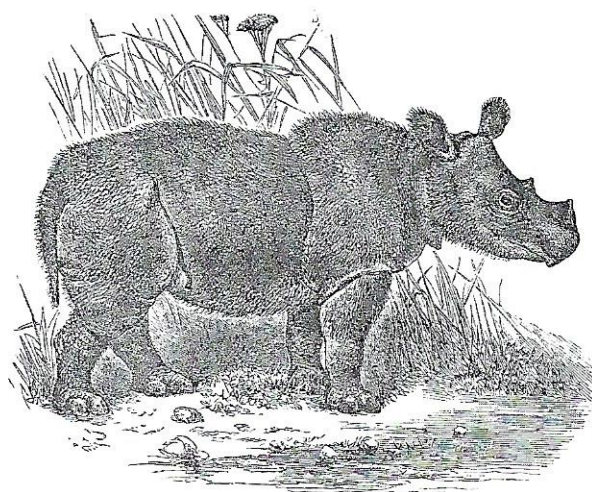


Fig. 89. Female Sumatran rhinoceros in Hamburg 1872-1876.

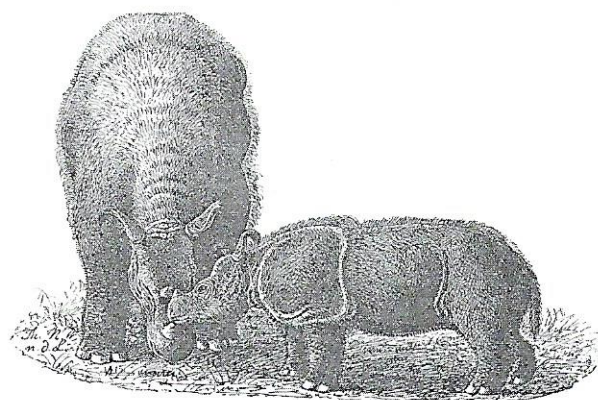


Fig. 90. Mother with calf born at Calcutta Harbour in February 1885, drawn by Th. Noack, in Hagenbeck's collection in Hamburg, December 1885.

### *F 1872 January 18 – 1876 March 24 †*

This animal was captured in a pit in the interior of Malaya and transported to Singapore (Noll 1873: 82-83 with figure). W. Jamrach Jr. and B. Hagenbeck Jr. were together responsible for its importation into Europe (Noll 1873: 80). The animal was pregnant on arrival, but lost the embryo (Kourist 1973: 139). This was the first specimen of the Sumatran rhinoceros ever exhibited in captivity in Europe. See Fig. 89.

### *1884 March (?)*

Two specimens were shown in March 1884 (Schlawe 1972: 181). It is likely that they were deposited by Hagenbeck for a short period. Their disposition is unknown.

### 2. Carl Hagenbeck (dealer)

Carl Hagenbeck (1908: 313) wrote in 1908 that



he had possessed five specimens of the Sumatran rhinoceros (not necessarily all at the same time), and all had died from enteritis: "da alle fünf Exemplare, welche ich kaufte, an Darmentzündung eingingen". He may have meant the following animals: (1) the female imported by Hagenbeck and Jamrach to the Hamburg Zoo in 1872; (2) and (3) two specimens deposited in Hamburg Zoo in 1884; (4) and (5) the mother and calf which arrived in Stellingen in 1885.

#### *F 1885 December – 1886*

Caught in Malaysia when pregnant and gave birth in Calcutta harbour in February 1885. Both mother and calf (see following entry) were shipped to Hamburg, arriving in December 1885. Noack (1886) studied them in detail, and published an illustration from his own drawing made 'nach dem Leben' (see Fig. 90). The dates 1895/1896 in Reynolds (1961a: 39) are wrong. Noack (1886) mentioned that both animals were sold for DM 25,000 to the famous American showman Barnum. It is strange that their arrival in the USA was not recorded, so perhaps they died while still in Hamburg or during transit across the ocean.

#### *F 1885 December – 1886*

This is the calf born in Calcutta in February 1885 to the female in transit. It was 72 cm high on arrival in Hamburg. This should be the ten-month old calf recorded by Grzimek (1958: 120). It was sold to Barnum together with the mother (see previous entry).

### **Jakarta, Indonesia**

#### *Ragunan Zoological Gardens*

The rhinoceroses are kept in two enclosures of 2200 and 1100 m<sup>2</sup>. They were observed mating in January 1991 (Prasetyo and Noordin 1993). A photograph was published by Stuart (1994).

#### *M 1986 May 24 – 1994 June 15 †*

'Jalu'

St.08

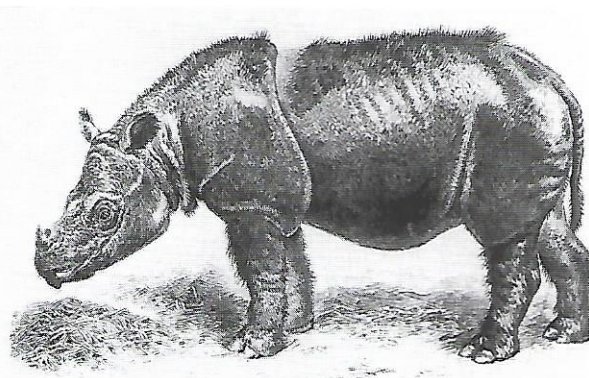
A young male which was caught at Torgamba, Sumatra on 24 March 1986 (Manan *et al.* 1987).

#### *F 1987 April 25 –*

'Dusun'

St.12

From Melaka. This animal was thought to be pregnant in 1992.



Das Sumatra Rhinoceros im Zoologischen Garten zu Leipzig. Nach dem Leben gezeichnet von H. Leutemann.

Fig. 91. Sumatran rhinoceros in Leipzig in 1895, after H. Leutemann.

### **Kabul, Afghanistan**

#### *Collection of Amir Abdul Rahmann*

No information about the private (?) collection of this ruler has been found.

#### *M 1888*

From Calcutta. It is only known that this animal left Calcutta to join this collection. Its arrival and further stay in Kabul have not been registered.

### **Leipzig, Germany**

#### *Zoologischer Garten*

The zoo was opened in 1878 by Ernst Pinkert.

#### *1894 – 1895 (?)*

This specimen was caught in Penang, Malaysia, and was imported by Ernst Pinkert. It travelled via Trieste, together with an animal destined for Budapest (Anonymous 1895). A drawing by H. Leutemann dating from 1895 was published in the *Leipziger Illustrierte Zeitung* (see Fig. 91). The animal was said to be four feet four inches high. It is not known how long it lived. It could perhaps be this rhinoceros which was (temporarily?) shown by Ehlbeck in his menagerie in 1895 (see Germany, Ehlbeck). In 1896, Heck (1896: 1020) mentioned that the species had been imported several times during the preceding years by Pinkert of Leipzig and Vokram of Altona (?), but it had proved difficult to keep them. Perhaps this meant that the Leipzig animal had already died?



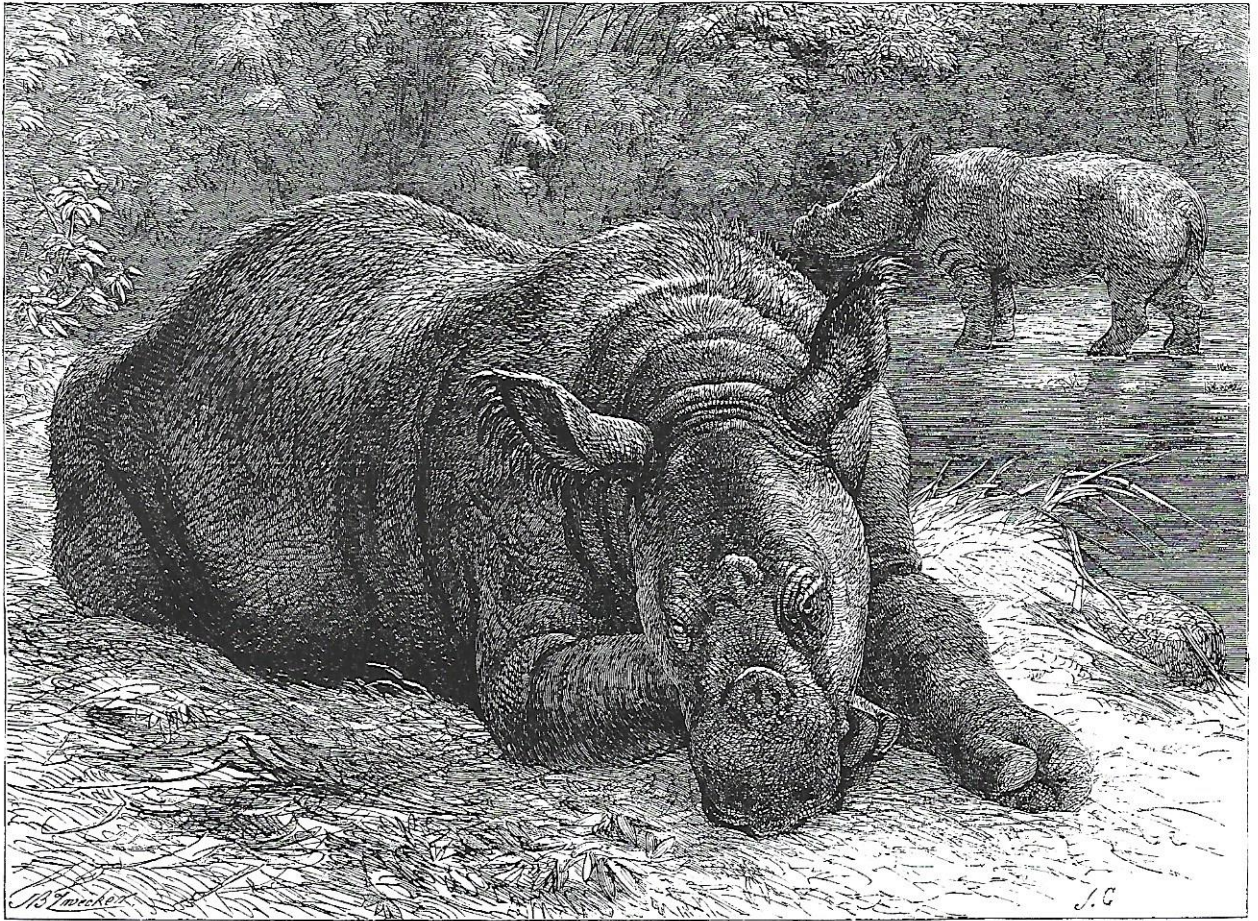


Fig. 92. 'Begum', type *Rhinoceros lasiotis*, at London Zoo in 1872.

## Liverpool, UK

William Cross (dealer)

1904

In 1904, a Sumatran rhinoceros was offered for sale by William Cross, an animal dealer who maintained a 'Zoological Establishment' in Liverpool. It was bought by the Breslau Zoo (Reynolds 1961a: 36), but never arrived, probably having died before shipment.

## London, UK

### 1. Zoological Society of London

F 1872 February 15 – 1900 August 31 †  
'Begum'

This animal was captured "by some villagers on the Sungoo River, close to the Chittagong Hill Tract" in November 1867, and was purchased by F.H. Hood who published a first description accompanied by an illustration in 1869 (Hood 1869). The 'Sungoo River' is the

present Sangu River in the southern part of Chittagong province, Bangladesh. Sclater (1876a: 652) published an account of its capture taken from a Calcutta newspaper, with the date of capture being given as January 1868, but this is probably incorrect. Presumably Hood kept the rhinoceros in Chittagong until plans were made for its transport some 2.5 years later (Anderson 1872). William Jamrach negotiated its purchase for London Zoo in November 1871, for £1250. At the end of 1871, while it was in Calcutta, it was described by Anderson (1872), who noted "peculiar long dropping hair" some five inches long on the ear margins. It was transported to England on the screw steamer *Petersburg*, passing through the Suez Canal. The Daily Occurrence Books kept by London Zoo show that it arrived on 15th February 1872. It created a sensation on arrival due to its hairy ears and some other bodily characteristics (Sclater 1876a: 653, figs. 4,5).

It was the type of *Rhinoceros lasiotis*, a new species proposed by P.L. Sclater, but first published by Buckland in 1872 (see Rook-



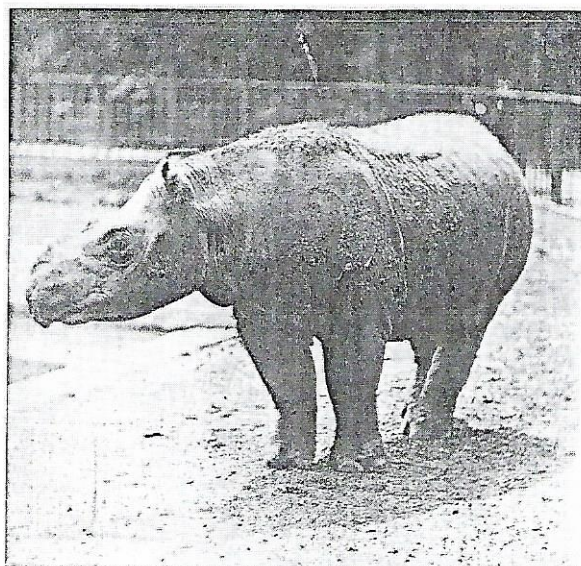


Fig. 93. London's female Sumatran rhinoceros shown in August and September 1872.

maaker 1983a: 87, 1984a: 16, 19). It was first illustrated in colour in Sclater (1872: 493, pl. XXIII) after a drawing by J.C. Keuleman, and then in Sclater (1876a, pl. XCVIII) after a watercolour by J. Wolf. There is an engraving by 'J.G.' in the *Illustrated London News* (Anonymous 1872; see Fig. 92). Edwards (1996a: 124-125) reproduced three photographs of this specimen in the zoo. Its remains (skull, horns and skin from the head only) went to the Natural History Museum, London, No. 1901.1.22.1 (Thomas 1901). The skull is exceptionally large (Groves 1982: 259).

*F 1872 August 14 – 1872 September 21 †*

This animal was caught by William Kroke in the Sunghi-njong [=Sungei Ujung] district, Negri Sembilan, Malaysia (Buckland 1872). It was deposited by Jamrach on 14th August (Daily Occurrence Books kept at the zoo) and bought by the zoo on 21st August for £600. It was an old female. Illustrated in Sclater (1876a, pl. XCVII) after J. Wolf. A photograph taken by Frederick York is shown in Edwards (1996a: 124, 1996b: 143). Garrod (1873) described its anatomy. Hide and skull are preserved at the Natural History Museum, London, No. 1872.12.31.1 (Groves 1982: 258, calling it an extremely aged skull). Groves (1971: 246, fig. 14) showed a photograph of the skull. It is of the type *Ceratorhinus niger* Gray, 1873, as the hide was blacker than other specimens (Rookmaaker 1984a: 20). See Fig. 93.

*F 1875 July 14 – 1877 May 30 †*

Captured in Johore, Malaysia, and imported by Charles Jamrach, London, who deposited it at the zoo on 14th July. It was purchased on 28th June 1876 for £600 (Sclater 1876a: 659).

*F 1878 October 4 – 1879 March 19*

A fully grown female, deposited by Jamrach (Sclater 1878). Reynolds (1961a: 35) recorded that it was returned to Jamrach to be sold to the Barons Arthur and Fernand von Schickler for Berlin Zoo in 1879. The von Schicklers gave a female Sumatran rhinoceros to that zoo in 1878 (see Berlin), but a second female arriving there in 1879 is not recorded (see Schlawe 1969). It is possible, in fact, that this specimen went to Antwerp to be auctioned at one of the zoo's regular animal sales. Antwerp Zoo probably had two Sumatran rhinos in 1879, and, after its death in that year, one of unknown sex was taken to the museum in Paris (see Antwerp, 1879).

*M 1879 March 20 – 1879 April 5 †*

On deposit (from the dealer Rice). It died of dropsy, combined with tuberculosis of the lungs and spleen. Forbes (1885) described the penis.

*M 1885 April 1 – 1885 May 22 †*

Purchased from Edward Cross of Liverpool on 16th April, together with the following female, for £500 (Sclater 1885). The date of death was mentioned as 22nd April in Beddard and Treves (1889).

*F 1885 April 1 – 1888 October 26 †*

Purchased from Edward Cross of Liverpool together with the above male. Beddard and Treves (1889) studied its anatomy.

*M 1886 April 27 – 1910 November 22 †*  
*'Jackson'*

Caught in the Bassein District of Burma and exhibited at Calcutta Zoo between 1884 and 1886. It had a very large front horn. Flower (1931: 202) recorded the date of death.

*F 1898 September 26 – 1900 February 13 †*

Evidence about this previously unrecorded animal was found by John Edwards in the Daily Occurrence Books of London Zoo. The animal was on deposit from the dealer Edward Cross of Liverpool.



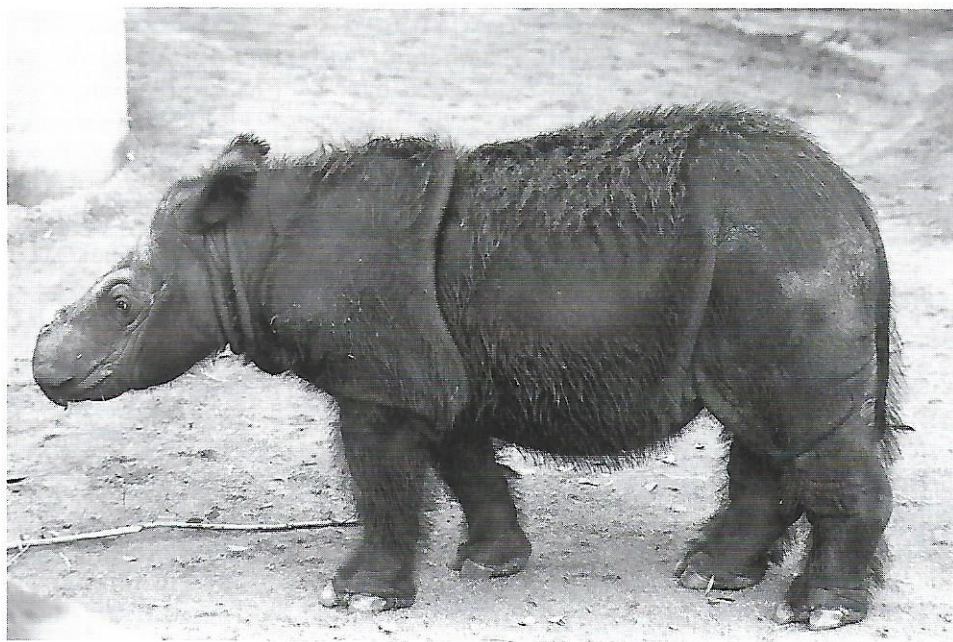


Fig. 94. 'Embam' in Los Angeles, 1993.

## 2. Victoria Docks/Rice (dealer)

*F* 1872 December – (?)

The steamer *Orchis* arrived at the Victoria Docks from Singapore with this female rhinoceros on board. She gave birth while on board (Bartlett 1873, with illustration). Mother and child were taken to the stables of the dealer Rice. The mother was later shipped to the USA. The destination was not clarified.

*F* 1872 December 7 – 1872 December 21 †

Born to a female in transit on board the steamer *Orchis* (see previous entry). It was three feet long, two feet high at the shoulder, and weighed 50 lbs. It lived just two weeks.

## Los Angeles, CA, USA

### Los Angeles Zoo

*F* 1988 November 25 – 1989 June 2

'Mahatu'

St.24

Caught in Sumatra on 22nd July 1988. Thomas (1989) reported the arrival in Los Angeles and supplied a photograph. To Cincinnati. See Fig. 1.

*F* 1989 November 29 – 1990 May 16

'Augustina'

St.27

Caught in Sumatra on 26th August 1989. Photograph in Johnston (1990). To New York Bronx. See Fig. 77.

*F* 1991 November 25 – 1995 August 4

'Embam'

St.29

Imported from Sumatra when it was between eight months and one year old. To Cincinnati. See Fig. 94.

## Madras, Tamil Nadu, India

### Zoological Gardens

*F* 1899 – 1913 (?)

In 1913, Flower (1914: 73) saw "a female *R. sumatrensis*, which has now been about 14 years here", which would mean that it came in 1899. Flower (1931: 203) added to the entry on this rhinoceros in Madras: "and left alive", which probably meant it was still alive when he last saw it in 1913.

## Malaysia

### Collection of Datok Rajah Kiah of Jelebu

*M* ca. 1930 – 1937 (?)

Jelebu is a region immediately east of Kuala Lumpur, Malaysia. Hubback (1939: 600) recorded, without dates (but probably referring to the period around 1930) that the Rajah caught a male baby rhinoceros. He cared for it for seven years. It was still hairy when it arrived. After seven years, it was a little over



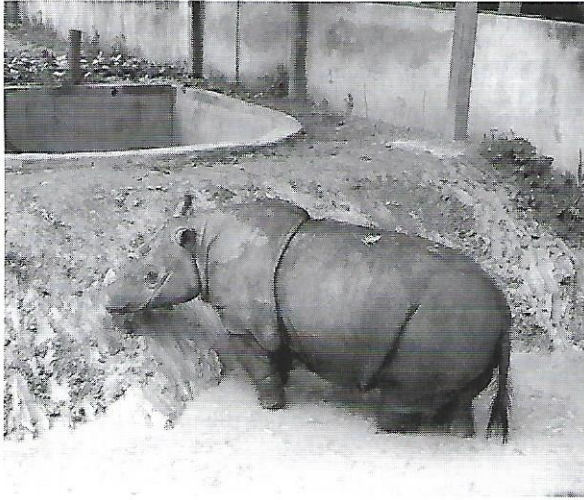


Fig. 95. One of the Sumatran rhinoceroses in Melaka, 1991.

seven feet high. It was just showing the anterior horn, but there was no sign of a posterior horn.

### Melaka, Malaysia

#### Zoological Gardens

Several Sumatran rhinos of Malaysian origin were kept in this zoo from 1984 onwards. Some interesting papers on various aspects of their behaviour and husbandry have been published by Zainal-Zahari *et al.* (1990a) and Richard *et al.* (1990). Zainal-Zahari *et al.* (1990a: 3) also tabulated the animals kept in captivity. The zoo cooperates with the Malaysian Government. Some animals are kept in special enclosures constructed on the edge of the forests of the Sungei Dusun Wildlife Reserve, Perak, Malaysia. See Fig. 95.

*F* 1984 April 30 –  
'Jeram'

*St.* 01

In April 1984, this animal was found by estate workers on an oil palm plantation near Jeram, Selangor, Malaysia. It was about seven or eight years old at the time. When it was found, the horns had been removed, and the jaw and left eye were badly damaged. Nardelli (1985: 4) published a photograph. It was kept in Sungei Dusun Wildlife Reserve from 13th January 1987 to 15th August 1987, and again from 31st May 1991 to 6th February 1993.

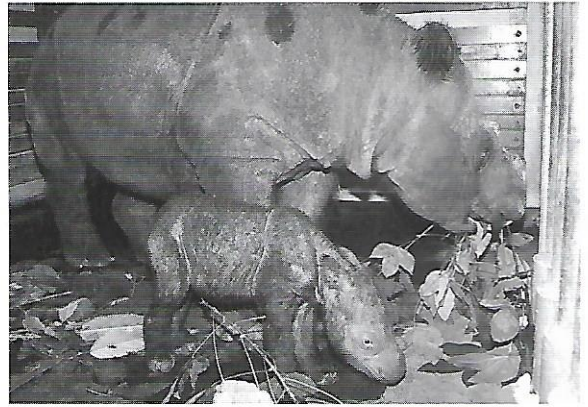


Fig. 96. Baby 'Minah' born on 23rd May 1987 at Melaka.

*M* 1984 May 21 – 1984 May 31 †  
'Erong'

*St.* 02

Caught in Perak, Malaysia, after being abandoned by its mother. Died after just ten days.

*F* 1985 April 18 – 1986 July  
'Melintang'

*St.* 03

Caught in a plantation in the Melintang Forest, Malaysia. Not recorded in Zainal-Zahari (1990a). To Bangkok.

*F* 1986 February 10 –  
'Rima'

*St.* 07

This adult female was captured in a pit trap in Tenggara, Johor, Malaysia, on 8th February 1986. It was caught when pregnant and gave birth on 23rd May 1987. From 13th February to 6th March 1987, it was kept at the Sungei Dusun Wildlife Reserve, and again from 4th February 1993. Zainal-Zahari *et al.* (1990b) analyzed the milk.

*F* 1986 July 6 – 1989 December 15 †  
'Julia'

*St.* 11

Caught on 6th July 1986 near Sungai Samak, Ulu Bernam, Perak, Malaysia. Kept in Sungei Dusun Wildlife Reserve from 13th January 1987 to 21st April 1989.

*F* 1986 September 9 – 1987 April 25  
'Dusun'

*St.* 12

Caught on 8th September 1986 in a pit trap near Sungei Dusun, Malaysia. It was kept at the Sungei Dusun Wildlife Reserve from 13th January 1987 to 6th March 1987. To Jakarta.

*F* 1987 March 5 –  
'Panjang'

*St.* 13

Caught in Selangor, Malaysia, on 25th February 1987. It was kept at the Sungei Dusun

Wildlife Reserve from 25th September 1987 to 20th April 1989, and again from 27th April 1991.

*M* 1987 April 25 – 1987 August 6 †  
'Napangga' St. 09

Caught at Torgamba, Sumatra on 15th June 1986. Müller (1988) published two photographs. It died due to severe colic (Zainal-Zahari *et al.* 1990d).

*F* 1987 May 23 –  
'Minah' St. 15

Born to 'Rima' (St.07) after 469 days in captivity. The mother was bred in the wild. At its birth, it weighed 24 kg, with a length of 92 cm, and a shoulder height of 45 cm. Tajuddin *et al.* (1988) described the birth. Photographs were published by Zainal-Zahari *et al.* (1990a, pl. 6, 8) and Foose (1987). See Figs. 7, 96.

*F* 1987 July 1 – 1988 September 23 †  
'Seri Delima' St. 16  
Caught in Selangor, Malaysia, on 1st July 1987.

*F* 1987 August –  
'Mas Merah' St. 19  
Caught in Selangor, Malaysia, on 26th May 1987, and kept at the Sungei Dusun Wildlife Reserve from 2nd May 1991.

*M* 1988 March 26 –  
'Shah' St. 20  
Caught in Selangor, Malaysia, on 26th March 1988. Kept at the Sungei Dusun Wildlife Reserve from 2nd May 1991.

*F* 1988 July 12 –  
'Seputih' St. 23  
Caught in Pahang, Malaysia, on 11th July 1988. Kept at the Sungei Dusun Wildlife Reserve from 31st May 1991.

*M* 1994 August 25 –  
'Ara' St. 39  
Caught in Malaysia.

## New York, NY, USA

### Bronx Zoo

*F* 1902 March 25 – 1902 December 16  
'Mary'  
This animal was received from Perak, Malay-

sia. There was no space in the zoo and the rhinoceros had to be kept in an orang-utan cage. It was sold to Ringling Brothers World's Greatest Show for \$5000 and transported to their headquarters in Baraboo, Wisconsin, USA. (Rookmaaker and Reynolds 1985: 137). It died at the circus during the autumn of 1908 (cf. USA, Travelling Menageries).

*F* 1990 May 16 – 1993 February 5  
'Rapunzel' St.27  
From Los Angeles, and transferred on loan to Cincinnati.

## Osaka, Japan

### Tennoji Zoo

1921 June 21 – 1925 January 30 †  
Two rhinoceroses were shipped from the Malayan Peninsula via Singapore in 1921. One died on the way. The other (sex unknown) arrived in June 1921 (Sotani 1974). It cost 23,500 yen. It died of utemia. After its death, the skeleton went to the University of Osaka, while the hide remained at the zoo. It was still there in 1975, in a poor condition, minus the horns which had been stolen (Rookmaaker and Reynolds 1985: 143). This was the first rhinoceros of any species exhibited in Japan.

## Paris, France

### Jardin des Plantes

1885 June 11 – 1887 June 13 †  
One very hairy specimen was seen in Paris by Bölsche (1910: 125), who clearly stated that it was Sumatran and that it was at the Jardin des Plantes, but did not specify the dates of arrival and death. These dates were recorded by the zoo. The specimen is preserved at the Natural History Museum in Paris (Marvin Jones, in litt.).

## Perth, Western Australia

### Zoological Gardens

The zoo was founded in October 1898.

1902  
Charles Mayer (1922: 124-129) caught a rhinoceros in Trengganu, Malaysia. It was



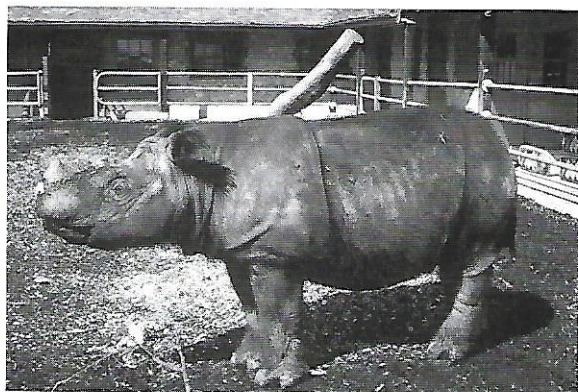


Fig. 97. Male Sumatran rhinoceros 'Torgamba' at Port Lympne, 1988.

shipped to Perth and Mayer was paid £200. From his story, Mayer gives the impression that the animal arrived, but no further data are known.

## Philadelphia, PA, USA

### Zoological Gardens

1952

Reynolds (1961a: 39) noted [from *America's First Zoo*, 4 (2), June 1952] that a pair of Sumatran rhinoceroses bound for Philadelphia on board the steamer *Schuyler Otis Bland* in March 1952 perished at sea. The animals had been obtained by the dealer Alton V. Freeman, who had to keep them in Singapore for almost a year before the documents and permits were ready. They probably came from Sumatra. They were due to arrive in New York on 12th March 1952, as reported in the *Inquirer* of 11th February, when they were still alive. The *Evening Bulletin* from Philadelphia dated 4th March 1952 reported that the zoo had been notified the previous day that the male had died near Suez after a sandstorm, and the female, missing her mate, died soon after near Naples. The bodies were not preserved.

## Port Lympne, UK

### Zoo Park

The Sumatran rhinoceroses imported to Port Lympne in the 1980s were caught in Sumatra. The project was explained by Buntaran (1987),



Fig. 98. 'Torgamba' at Port Lympne, with the late Tim H. Clarke, a rhinoceros iconography expert.

Begg (1988), Nardelli (1985-1987) and Furley (1993a).

*M* 1986 April 5 –  
'Torgamba'

St. 04

Caught on 25th November 1985 in Torgamba, Sumatra. Photograph in Klös (1987: 28). See Figs. 97, 98.

*F* 1986 August 26 – 1986 October 30 †  
'Subur'

St. 10

Caught on 22nd June 1986 in Torgamba, Sumatra. Nardelli (1986) showed pictures of the capture, while Begg (1986) described its transport to England. Furley (1987, 1993b) described its clinical history.

*F* 1988 April 30 – 1994 November 4 †  
'Meranti'

St. 18

Caught on 9th September 1986 in Torgamba, Sumatra. Begg (1988) described its transport to England. It died of ovarian cancer.

## San Diego, CA, USA

### San Diego Zoo

*F* 1988 November 25 – 1995 February 22 †  
 'Barakas' St. 25  
 Caught in Torgamba, Sumatra on 24th July 1988, and was 12 years old on arrival (Greeley 1989, Shima 1989). It was euthanized when its health continued to deteriorate due to chronic interstitial nephritis.

*M* 1991 April 10 – 1991 October 24  
 'Ipuh' St. 28  
 Caught in Sumatra on 23rd July 1990. To Cincinnati.

*F* 1991 November 23 – 1992 May 25 †  
 'Rami' St. 33  
 Caught in Sumatra on 12th June 1991. It was eight years old on arrival.

*M* 1992 August 30 – 1995 February 26 †  
 'Tanjung' St. 35  
 Caught in Sumatra on 20th March 1992. It was six years old on arrival. It died due to torsion of the caecum.

## Sepilok, Sabah, Borneo, Indonesia

### Sumatran Rhino Capture Operation

Sumatran rhinoceroses are captured in various places in Sabah, the northern part of the island of Borneo, Indonesia. These animals belong to the smallest known sub-species, *Dicerorhinus sumatrensis harrissoni* (Groves, 1965), named after Tom Harrison. It appears that none of these specimens have been taken out of Borneo. Bosi (1996) described the project, giving details of the breeding of the species.

*M* 1987 March 28 – 1987 March 29 †  
 St. 14  
 Caught in Linbar Kinabatangan, Sabah. It died after one day due to internal injuries and respiratory failure.

*M* 1987 July 14 – 1992 April 22 †  
 'Tenegang' St. 17  
 Caught in Lahat Datu, Sabah. Kept at Sepilok, Sabah (Zainal-Zahari *et al.* 1990a: 3). According to Bosi (1996: 24), it died in 1991.

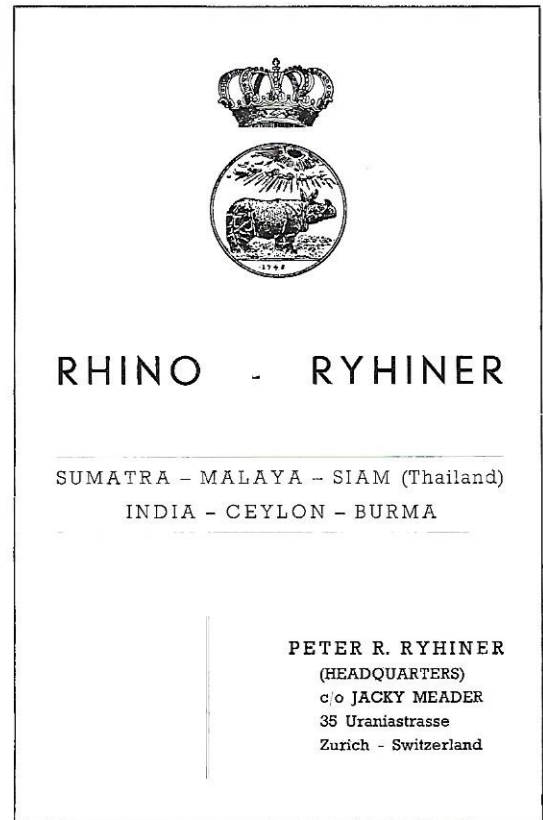


Fig. 99. Advertisement from Peter R. Ryhiner, in *International Zoo News*.

*M* 1988 May 24 – 1988 May 25 †  
 St. 21  
 Caught in Sabah, but died after one day.

*F* 1989 April 22 –  
 'Lun Parai' St. 26  
 Caught in Lahat Datu, Sabah. Kept at Sepilok, Sabah (Zainal-Zahari *et al.* 1990a: 3).

*M* 1991 May 5 – 1995 May 8 †  
 'Takala' St. 31  
 Caught in Sabah on 5th May 1991. Died of tetanus.

*M* 1992 August 28 –  
 'Sidom' St. 36  
 Caught in Sabah on 27th August 1992.

*M* 1993 July 27 –  
 'Tanjung' St. 38  
 Caught in Sabah on 20th July 1993.

*F* 1994 June 18 –  
 'Gologob' St. 40  
 Caught in Sabah on 17th June 1994.



## Singapore, Singapore

### Botanic Gardens

The presence of rhinoceroses at the Botanic Gardens in Singapore was noted by Ridley in two papers, but his statements are confusing. Ridley (1901) first stated that "lately ... two examples of *R. sumatrensis* have been on view at the Botanic Gardens. ... Both were females trapped at S'tiawan in Perak." However, Ridley (1906: 161) subsequently recorded that "three of these were kept temporarily before shipping to the Vienna Zoological Gardens in 1901." Vienna Zoo only received two specimens, which arrived in 1900 and 1902, respectively. Therefore, one of the 1901 Singapore animals could have been the female arriving in Vienna in 1902. The second specimen might have been in Singapore in 1900, unless the date of arrival in Vienna was recorded incorrectly. The third specimen is unknown from the records in Vienna: it either died on the way or went elsewhere.

#### 1875

Ridley (1906: 161) stated that "there was one [rhinoceros] in the gardens as early as 1875". The same source (p. 133) mentioned that the Botanic Gardens disposed of its large mammals in 1878, mostly to Calcutta Zoo. However, no rhino arrival is recorded in Calcutta in 1878. It would, of course, be possible that this is one of the animals which were imported into Europe in 1878, to London and Berlin, but in neither case is the actual provenance of the specimen exactly known.

#### F (?) – 1900

This specimen was purchased by the Austrian Consul and sent to Vienna arriving on 26th October 1900 (Antonius 1937).

#### F 1901 – 1902

A second female purchased by the Austrian Consul arrived in Vienna on 17th July 1902. This may have been the specimen caught in 1901 in the Dindings, Malaysia, near Sitiawan (Wray 1905). During that expedition, three animals were caught: one male which went to the Perak Museum (and presumably died soon after capture), a second animal which also died, and a third which "was shipped to Singapore". Ripley (1901) also recorded the locality of Sitiawan for two animals, as mentioned above.

## Stuttgart, Germany

### Nil's Tierpark

Loisel (1912, II: 226) recorded that this zoo was opened in 1870 with Mr. Nil as its director. In fact, it was Johannes Nill who opened a garden in 1871 on the Herdweg (Hässlin and Nogge 1985: 111). After 1892, the work was continued by Adolf Nill, until the garden's closure in 1906 (Neugebauer 1993: 22-25).

#### 1895

One rhinoceros was exhibited in 1895 (Reynolds 1961a: 36, from I. Krumbiegel). No details were recorded.

## Sumatra, Indonesia

### 1. Atjeh, Sultan Iskander

#### 1641

Nicolaus de Graaff (1701: 13) was in 'Achín' (=Atjeh, N. Sumatra) when Sultan Iskander Tsani died on 15th February 1641. When he was buried, the pageant included 260 elephants and 'enige Rinoceros' [some rhinoceros].

### 2. Collection of Max Poser

#### M 1928

Captured in the interior of Langsar, Sumatra [probably Langsa, Aceh, N. Sumatra]. This rhinoceros was in the possession of Max Poser (in Sumatra) and he agreed to sell it to Dresden Zoo. However, a cobra bite killed it before it could be transported. Ullrich (1955) published two photographs of the animal.

### 3. Collection Coenraad-Uhlig

#### F 1930

Coenraad-Uhlig (1933) recorded that a young female called 'Bong' was found after the mother had been killed, about 275 km from Atjeh [Aceh], North Sumatra. It was transported to Atjeh while it was rather ill. It recovered at first, but at the onset of the wet season, it died of bronchitis. Coenraad-Uhlig published five photographs taken on 16th and 18th November 1930.

#### 4. Danish Sumatra Rhino Expedition 1959

This expedition organized by the Copenhagen Zoo was headed by A. Dyhrberg and H. Skafte. It operated in the Siak River area, Riau. Skafte (1964) and Andersen (1963) recounted this venture. In all, nine females and one male were captured. Six females were released back into the forest. The male escaped from his enclosure. The details of the remaining three females are as follows:

*F 'Mulia'*: caught summer 1959. Died (poisoned?) after some weeks. Photograph in Skafte (1964: 32). Hide and skeleton in the Natural History Museum, Copenhagen.

*F 'Subur'*: caught summer 1959. To Copenhagen Zoo.

*F (no name)*: caught summer 1959. To Bogor Palace.

#### 5. Animals caught by Gillmore and Ryhiner

1958 – 1959

Harry Gillmore was the manager of Standard Vacuum Oil Co., stationed at Buatan on the Siak River, Sumatra. In November 1958, he caught a male and a female rhinoceros, which he kept near his compound. In December 1958, Peter Ryhiner (a Swiss animal dealer) saw the female called 'Dimples', but the male was elsewhere (see Fig. 99). Ryhiner went to Singapore on other business, and on his return in January 1959, he found that the rhinos had been released into the forest (see Rookmaaker and Reynolds 1985: 144-146). However, Ryhiner caught two animals in the following months in the same place:

*F 'Betina'* caught on 17th March 1959 (probably the same as 'Dimples' caught and released earlier). The animal was transported to Singapore in May 1959 where it was kept at the farm of exporter Louis F. De Jong. On 20th June 1959, it was flown to Switzerland; arrival in Basel Zoo on 2nd July 1959.

*M* captured September 1959. It escaped after three days.

#### 6. Sumatra Rhino Capture Operation 1985-1991

This team operates in the Torgamba area, between the villages of Bakambatu and Tan-

jungmedan in Riau Province, Sumatra (Nardelli 1985, 1987a,c; Klös 1987).

The following animals have been caught:

- 1985 25th November: Male (young) 'Torgamba' caught in pit trap. In April 1986 it was transported via Singapore to Port Lympne in England (St. 04).
- 1986 23rd January: Female (adult), 'Riau', panicked in trap, died the same day (St. 05).
- 1986 2nd February: Male 'Rokan', sent to Surabaya in May 1988 (St. 06).
- 1986 23rd or 24th March: Male (young) 'Jalu' caught in pit trap. Sent to Jakarta Zoo (St. 08).
- 1986 15th June: Male 'Napangga' caught in pit trap; it had a snare wound on the legs. To Melaka, April 1987 (St. 09).
- 1986 22nd June: Female 'Subur' caught in trap, with snare wound on the leg. It left on 25th August 1986 for Port Lympne, England (St. 10).
- 1987 21st July: Female 'Meranti', to Port Lympne in April 1988 (St. 19).
- 1988 8th July: Female 'Dalu', to Bogor in November 1988 (St. 22).
- 1988 22nd July: Female 'Mahato', to Cincinnati via Los Angeles in November 1988 (St. 24).
- 1988 24th July: Female 'Barakas', to San Diego in November 1988 (St. 25).
- 1989 26th August: Female 'Rapunzel', to New York Bronx via Los Angeles in May 1990 (St. 27).
- 1990 23rd July: Male 'Ipuh', sent to San Diego in April 1991 (St. 28).
- 1991 6th March: Female 'Ipak', to Los Angeles in November 1991 (St. 29).
- 1991 18th April: Male 'Romi', sent to Bogor in September 1991 (St. 30).
- 1991 17th May: Female 'Bina', to Bogor in September 1991 (St. 32).
- 1991 12th June: Female 'Rami', to San Diego in November 1991 (St. 33).
- 1992 17th January: Female 'Wiwien', to Surabaya in July 1992 (St. 34).
- 1992 20th March: Male 'Tanjung', to San Diego in August 1992 (St. 35).

#### Surabaya, Indonesia

##### Kebun Binatang Surabaya

Animals are kept on a moated island of about



half a hectare in size (Prasetyo and Noordin 1993).

*M* 1988 May – 1993 August 12 †

'Rokan'

St. 06

Caught on 2nd February 1986 in Torgamba, Sumatra. Begg (1988) described its transport to Surabaya.

*F* 1992 July 25 –

'Wiwien'

St. 34

Caught in Sumatra on 17th January 1992.

### **Tabin Wildlife Reserve, Sabah, Malaysia**

*M* 1993 September 25 – Released

'Bulud'

St. 37

This animal was caught during capture operations in Sabah on 7th July 1993, and subsequently released in the park (Foose 1994b).

### **Theyboo, Myanmar**

#### *Monastery*

1859

The French traveller, A. Thomas-Anquetil, visited the monastery of Theyboo, on the banks of the river Mhyet-Nghy, near Mandalay, Burma. This contained a large menagerie which exhibited, among many other animals, 'le rhinocéros' (from Loisel 1912, III: 11).

### **USA**

#### *Travelling Menageries and Circuses*

1872 – 1873 (?)

In 1872, the circus run by P.T. Barnum, W.C. Coup and Dan Castello exhibited a 'black rhinoceros'. In November 1872, this animal was touring through Indiana with 'P.T. Barnum's Great Traveling Museum' owned by P.A. Older. On 6th December, 1872, it was seen in Atlanta, Georgia and was called a 'black rhinoceros'. At the end of December 1872 it was in winter quarters at Algiers, LA. In 1873, Older's circus was renamed 'Older & Chandler'. There was an auction of the show at Shreveport, Caddo Parish, in September 1873 where they advertized a 'black Sumatran rhino'. It was purchased by James Cumpston, who took it to New York and offered it for sale again. Its further history is not known.

Although it was called a 'black' rhinoceros, it was probably an example of the Sumatran species.

1872 – 1875 October †

Adam Forepaugh received a 'monster two-horned hairy rhinoceros' for his Great Forepaugh Show during 1872. It was still present in 1873. There is a newspaper review written during Forepaugh's stand at Chicago on 25th-30th May, 1874, where the reporter saw "a full-grown specimen of the black Indian rhinoceros, a hideous beast, with eyes half way down his nose, and so small and fiery that they looked like a candle shining through a knot-hole in a dead wall; with splay feet two sizes too small for him and his skin three sizes too large. It is the color of an asphalt pavement, feels like the side of a barn, and hangs in wrinkles and folds all over him."

On 13th October, 1875, a rhinoceros was injured in a road accident between Amsterdam and Schenectady, N.Y. The animal died of its injuries after about a week.

1880 – 1887 (?)

John Robinson had a rhinoceros in 1880 when he visited Carlisle, PA. It was called a 'Sumatran' animal. In 1882 the animal was in California. In 1887, again visiting California, John Robinson advertized a 'double horned rhinoceros'. At that time, the animal might have been dead, because the style of the advertisement was less specific than usual.

1881 – 1886

P.T. Barnum and James A. Bailey had one rhinoceros (species unknown) in 1881 in the Barnum & London Circus. Later in the 1880s, they had two rhinoceroses, which, in 1886, were described as an African and a 'double-horned' animal. Perhaps the latter was in fact a Sumatran specimen.

*F* 1890 – 1896 (?)

The Great Adam Forepaugh Show in 1890 was acquired by Cooper, Bailey and Barnum. From 1892 onwards, Bailey was the sole owner. From 1890 to 1893, the circus showed a female Sumatran rhinoceros. It was left at Washington Zoo from 7th November 1893 to 3rd March 1896. It was then shown in Columbus, OH, by Adam Forepaugh and Sells Bros. It was alive on 18th November, 1896 when the circus performed in Anderson, SC. No later records.



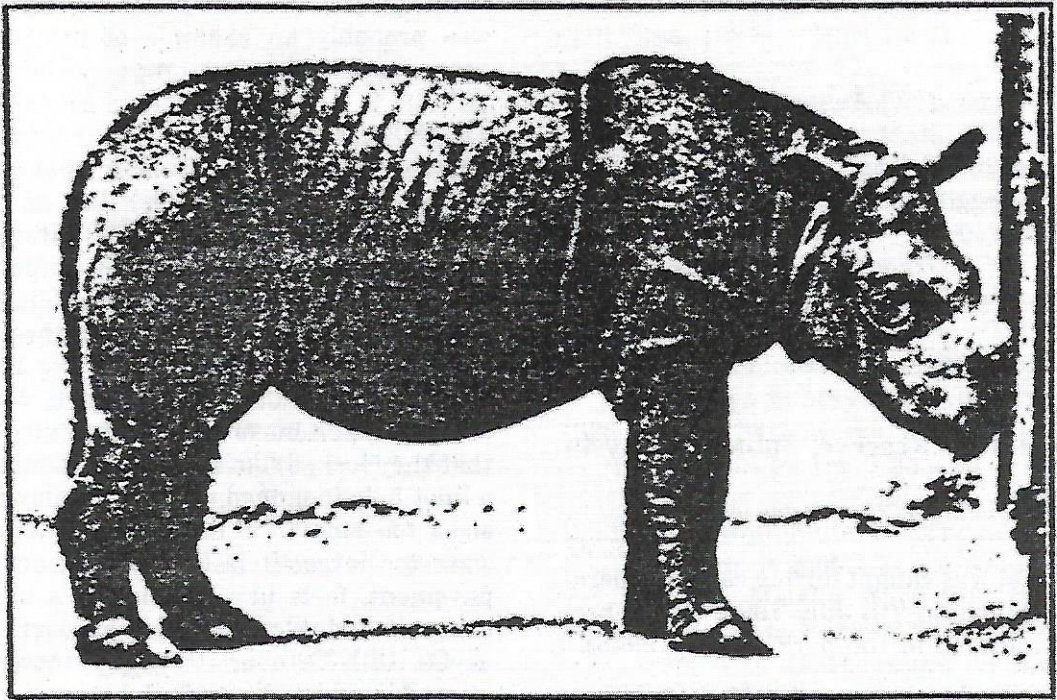


Fig. 100. Early photograph of Sumatran rhinoceros 'Mary' in Vienna, around 1905.

*F* 1902 December 16 – 1908 †

The animal was purchased from the Bronx Zoo, New York by the Ringling Bros. Circus. The animal was with the circus for several years. A Ringling Bros. advertisement in *The Baraboo News* (Wisconsin) dated Thursday 18th March 1909 states that "last fall [1908] their Sumatran rhinoceros died".

### Vienna, Austria

#### *Schönbrunner Tiergarten*

*F* 1900 October 26 – 1910 November 11 †  
'Jenny'

This animal had been exhibited for a short time in the Botanic Gardens, Singapore, where it was bought by the Austrian consul. Antonius (1937) published a photograph; he stated that the animal died on 11th November 1908 from lung tuberculosis. However, the remains were entered in the catalogue of the Natural History Museum in Vienna on 15th November 1910 and it is possible that 'Jenny' died in 1910 (as recorded by Brachetka 1947: 73).

However, Hagenbeck (1914: 277) referred to just one animal in Vienna in 1908 (female Mary). The skull, still in the museum, NMW 3082, is said to be not quite mature (Groves 1982: 257).

*F* 1902 July 17 – 1920 September †  
'Mary'

This animal was caught in the Dindings, Perak, Malaysia in 1901 and was then shown in the Botanic Gardens in Singapore for a short time. It was bought by the Austrian consul in Singapore. It was very weak on arrival. Both this female and 'Jenny' had very bad tempers. For instance, the keeper Anton Husz was once thrown against the fence by Mary. He could only escape by throwing the food bucket at her horn and running away in the confusion. Antonius (1937, figs. 2,3) published two photographs of Mary, one taken around 1905 by A.K. Schuster, the second dated 1911 by C. Seebald (these pictures were probably destroyed in a bomb attack in February 1945, according to Dr. Kurt Kolar, in litt. 14th August 1995; see Fig. 100). Mary died either in 1919 (Antonius 1937, Brachetka 1947) or more



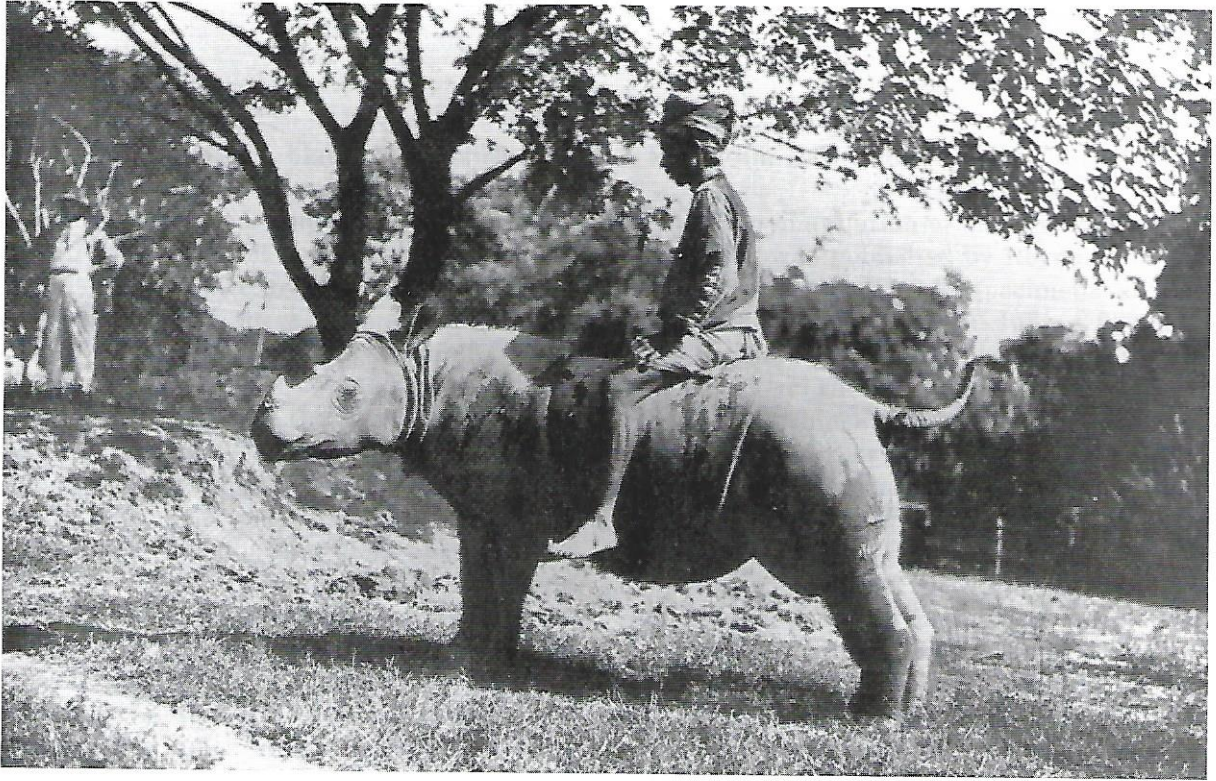


Fig. 101. Sumatran rhinoceros in Rangoon in 1913 (from Flower 1914, pl 10).

probably in 1920, as the remains were received at the Natural History Museum of Vienna on 16th September, 1920 (see Rookmaaker and Reynolds 1985: 148). The skull (NMW 5026) is exceptionally large (Groves 1982: 258).

### Washington, DC, USA

#### *National Zoological Gardens*

*F* 1893 November 7 – 1896 March 24

This animal was left at the zoo by the Adam Forepaugh Circus and it returned to this show after its interests had been acquired by the Sells Brothers, operating under the name of the Adam Forepaugh and Sells Brothers Combined Circus (Reynolds 1961a: 38).

### Wrocław, Poland

#### *Zoologischer Garten*

1904

In 1904, a Sumatran rhinoceros was offered for sale by William Cross, an animal dealer who maintained a 'Zoological Establishment'

in Liverpool (not in London), and it was supposedly bought by Breslau Zoo (see Reynolds 1961a: 36). It probably never arrived. It is not mentioned by Gleiss (1967) in his extensive history of Breslau Zoo.

### Yangon, Myanmar

#### *Zoological Gardens*

*M* 1909 – 1916 (?)

Flower (1914: 90, pl. 10) saw this animal in 1913 and said that it had been received from the Straits Settlements [Malaysia] in 1909. It was tame enough to allow the keeper to sit on its back. Christopher (1916, fig. p.228) published a photograph taken ca. 1916. See Fig. 101.

## 7. The black rhinoceros (*Diceros bicornis*)

There have been 775 black rhinoceroses recorded in captivity up to the end of 1994, 483 (62%) imported from the wild and 292 (38%) born in zoos. The first specimen (since Roman days) is said to have arrived in Antwerp, Belgium in 1858, but there is no evidence available in this case. Moreover, there are a few 18th century reports of double-horned rhinoceroses in Europe, but the references are too vague to conclude that the black rhinoceros was in fact to be seen in those days (see Europe: early specimens). Therefore, it is safer to assume that the first black rhinoceros in captivity was the one which arrived at London Zoo in 1868. This is a remarkably recent date. It is obvious that large parts of Eastern and Southern Africa were only accessible from the mid-19th century. However, one would have thought that black rhinos would have been rather easily available in South Africa, near the Cape of Good Hope, or in the Northern parts of its range in Ethiopia and Sudan. It is likely that there was a combination of factors which kept the species out of captivity: its huge size, inaccessibility of habitat, and wildness (the black rhino is not easily tamed like the other species).

During the 19th century, only 13 black rhinos were imported. The largest number on show simultaneously in one year was six in 1877-1878 and again in 1881-1883. In the first quarter of the 20th century, the number of imports was still very low. Only in 1914 and 1915 were there 12 and ten animals, respectively, in the world's collections. Since 1930, there has been a steady increase of black rhinos in captivity. Between 1930 and 1950, from 20 to 49 animals were shown, and between 1951 and 1959, from 50 to 96. In 1960, the number exceeded 100 for the first time, while in 1990, the 200 mark was reached. The first birth occurred in 1941 (see below). From 1989 onwards, there have been over 100 zoo-born animals alive in the various zoos and collections. Throughout history, these animals have been kept at 203 different collections in 50 countries.

### Previous lists and the studbook

The first compilation of black rhinoceroses in captivity was published by Reynolds in 1963. He gave details of 275 specimens exhibited from 1868 until 1963, including 22 captive births. Later, he found other fascinating information on rhinos in American circuses. The first list of black rhinoceros births was published by Reuther (1972), complimented (and written without the knowledge of the former) by Rookmaaker (1973a). At that time, 77 births could be recorded.

The studbook of the black rhinoceros was entrusted to Berlin Zoo at the International Conference of Zoo Directors in Colombo in the Autumn of 1966. Dr. Heinz-Georg Klös, then director of Berlin Zoo, started to collect information in 1967. Each registered animal was given a studbook number and name, e.g., 001-BE 1 (number: 001, name: BE 1). The information contained in the studbook was first published by Klös and Frädrieh in 1970, with additions in 1971. Since that time, Berlin Zoo has regularly updated this information; between 1981 and 1995, seven separate booklets have appeared (Klös and Frese 1977, 1981a, 1983, 1987, 1991, 1993; Göltenboth 1995). It is a tribute to Dr. Klös and his coworkers that this studbook, together with that of the white rhinoceros, has been readily accessible to all owners and other interested people. In 1968, the studbook contained data on 128 black rhinos, most of them still alive at that time. At the end of 1994, there were 221 (98/120/3) living animals recorded at 75 locations, out of a total of 556 registered animals. At first, the aim of the studbook was to collect biological-statistical data for scientific and husbandry purposes, but later, with dramatically declining wild populations, this changed to provide a basis for the coordination of captive breeding.

### Circuses and travelling shows

The black rhinoceros is not easily kept in a travelling menagerie. The animals appear to be too unpredictable. There has never been a

performing black rhinoceros. As usual, the references to circus animals are difficult to interpret: the same animal may be recorded at different localities without a clear connection; circus owners rarely told clearly and exactly how and where the animals were obtained; references to circus rhinos, particularly in Europe, are very few. The data of American circus animals have been studied and presented by Reynolds (1963, 1967, 1982, 1993), and are followed in the present compilation. In the last century, owners of American circuses were more eager to show rhinos of all varieties in their shows than were zoo directors. Of 13 specimens imported in the 19th century, only three arrived in European zoos in the first instance. In that same period, from 1870 onwards, no less than six black rhinos could be seen in American circuses.

### Longevity

About two-third of the black rhinos in captivity died before they reached their tenth year. Mortality is rather high, both in imported animals and in those born in zoos. Only two

animals are known to have lived for over 40 years (Table 30).

The longest living black rhinoceros was the ♀ Mary in Chicago Brookfield, who stayed there from 26th June, 1935 to 18th March, 1980 (Rookmaaker and Reynolds 1985). She is followed by an animal which arrived in Sydney on 21st May, 1951 and was still reported to be alive in 1994. There are a few other records of specimens living for over 35 years, as detailed in Table 31.

### Taxonomy

Taxonomy of the black rhinoceros received little attention until relatively recently. The species has a very wide distribution over much of the African continent. For a proper taxonomic survey, relatively large numbers of skulls, skeletons and hides from different areas are needed. In the case of the black rhinoceros, these samples are hard to obtain. The first attempt to analyze the available information and material from the entire range of the species was made by Ludwig Zukowsky (1965). On the basis of 79 skulls, photographs and written accounts of rhinos in zoos and in the

Table 30. Average longevity of black rhinoceros in captivity

Years in captivity	Imported animals		Captive births		Total	
	n=483		n=292		n=775	
0	68	14%	48	16%	116	15%
1- 9	202	42%	147	50%	349	45%
10-19	104	22%	74	25%	178	23%
20-29	80	16%	31	3%	101	13%
30-39	25	5%	2	0.1%	27	3%
>39	4	1%	-	-	4	1%

Table 31a. Longevity of captive black rhinos dying in captivity

Sex	Studbook No.	Dates	Age		Total in days
			years	months	
Female	61-CHI 2	26 June 1935-18 March 1980	44	9	16,337
Male	39-VIE 1	19 June 1954-29 April 1990	35	10	13,098
Male	97-ADL 1	10 July 1947-30 August 1982	35	1	12,835
Male	74-SFO 1	22 November 1956-7 November 1991	35	-	12,768

Table 31b. Longevity of captive black rhinos, probably still alive in 1994

Female	96-PER 1	21 May 1951-[December 1994]	42	7	(in Dubbo)
Male	409-PRO 1	12 July 1954 - [December 1994]	40	6	(in Detroit)
Male	68-CMH 1	1954 - [December 1994]	ca. 40	-	(in Columbus)
Female	263-PKG 1	17 July 1957 - [December 1994]	37	5	(in Beijing)
Female	197-SYD 7	23 August 1958 - [December 1994]	36	4	(in Dubbo)

wild, he proposed 16 subspecies. It is a pity that his taxonomic procedures were outdated, because his paper on the black rhinoceros contains a wealth of valuable data which were rather ignored later. Colin P. Groves had studied rhinoceros skulls in many museum collections and had come to different conclusions. He presented these in a rather short paper (nine pages) in 1967, recognizing seven subspecies. His synthesis was much easier to use than the classification by Zukowsky, and in general terms, Groves (1967) has been followed ever since. It was, of course, understood by Groves better than by anyone else, that the material available for study was not really adequate, and that further evidence would lead to adjustments in his classification.

Du Toit (1986, 1987), on behalf of the African Elephant & Rhino Specialist Group (AERSG), rather easily dismissed the papers by Zukowsky and Groves, as the samples on which they were based were too small: "by measur-

ing as many as possible of the skulls of rhino that have been poached or have died naturally in African wildlife areas, the issue of rhino taxonomy could be investigated in much more depth" (Du Toit 1986: 5). In 1987, he reported that 300 skulls could be measured, but these were "mainly from Southern Africa". He also admitted that several populations were now practically extinct (Somalia, Ethiopia, etc.), and therefore that further material was unlikely to be added. It is unfortunate that none of the data assembled by Du Toit and the AERSG have been published so far. I would agree that there is a need to study as much material as possible, but would add that there is an even greater need to analyze those data and compare them with earlier studies, in order to reach a subspecific classification of the black rhinoceros which would be not only practical, but also taxonomically sound. There are quite a few new insights which would justify a new synthesis, for example, that skulls from Etosha N.P. in North-Western Namibia have a



Fig. 102. Black rhinoceros in Los Angeles in 1983, mother 'Mabel' caught in Zimbabwe and female calf 'Shabani'.



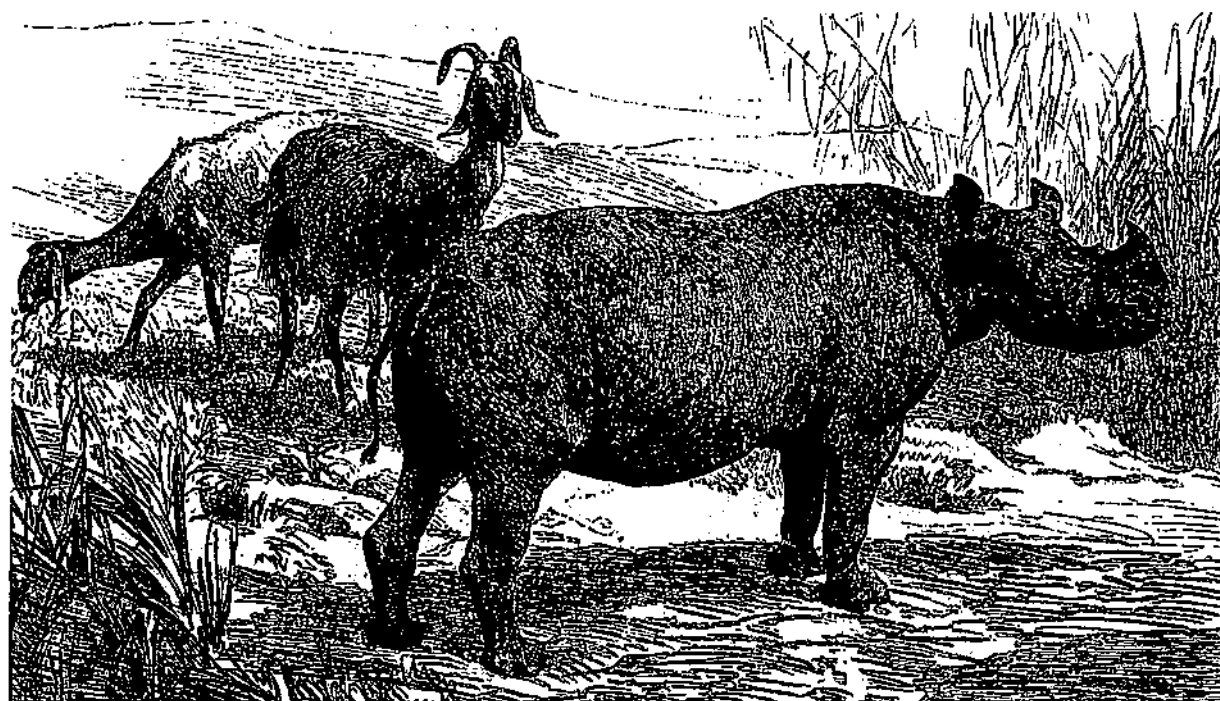


Fig. 103. Berlin Zoo's female 'Molly' from Ethiopia, depicted by C. Steffek, 1870.

larger occipital breadth than previously thought (Du Toit 1987: 4), that rhinos from the Luangwa Valley in Eastern Zambia are distinct from others (Groves 1993), that DNA variation distinguishes certain populations (O'Ryan *et al.* 1994).

The African Rhino Workshop held in Cincinnati in October 1986 (reported in *Pachyderm*, No. 9, 1987) attempted to strike a balance between the complicated taxonomy of the black rhinoceros and the need for immediate action to conserve the species. For that reason, they recommended that four 'conservation units' from different parts of the animal's range should be recognized:

1. The South-Western populations [Namibia].
2. The Southern-Central populations [from Natal through Zimbabwe and Zambia into Southern Tanzania].
3. The Eastern Populations [Kenya and Northern Tanzania].
4. The North-Western populations [from Somalia to Central African Republic and Cameroon].

This is a reasonable and practical proposal, as long as it is clear that these are general groups rather than subspecies, and that it would be premature to attach subspecific names to these groups, as if there were only these four groups in nature. The available material is still too limited for such a conclusion, and some of these four groups are likely to com-

bine presently understood subspecies.

For example, the first group (South-Western) would be *Diceros bicornis minor* according to Groves (1967), but Du Toit (1987) would seem to refer them to the nominal *D. bicornis bicornis*. This is a rather hasty conclusion, without any attempt at discussing the exact relationship of his unpublished data with the extinct *bicornis*, the nearby *chobiensis*, or even the possible Namibian subspecies called *niger* and *occidentalis*. The second group (South-Central) probably combines *D.b. minor* and the unnamed Luangwa subspecies proposed by Groves (1993). Neither has it been clarified where in Tanzania the border would be between this second group and the third. It is undeniable that rhinos from the Serengeti (*D.b. minor*) are larger than those of S.E. Kenya (*D.b. michaeli*). The small East African type extends into Northern Tanzania, and the dividing line seems to lie somewhere between the Ngorongoro Crater and the Serengeti N.P. (Prins 1990). How this line extends westwards is unknown, and it is just an assumption that *michaeli* in Tanzania is restricted to the region roughly between Ngorongoro and Kilimanjaro.

The third group (Eastern) seems to be poorly defined. Groves (1967) showed that the black rhino of East and South-East Kenya (*michaeli*) differs from those in Western Kenya, extending into Uganda and Sudan (*laoen-*

sis). There seems to be some division along an imaginary line between Lake Naivasha and Lake Baringo, but how this line would extend southwards or northwards is not clearly understood. Rhinos in the South-Western part of Kenya (Maasai Mara and westwards to Lake Victoria) appear to be *D.b. minor*. But this will need further investigation. The fourth group (North-Western) probably intentionally combines two subspecies, *D.b. brucii* and *longipes*. This would be a practical consideration, because the black rhino is, or is almost, extinct in Ethiopia and Somalia (*brucii*), while the population in C.A.R. and Cameroun is very small.

### Origin of imports

Between 1858 and 1994, a total of 483 black rhinos was imported to the various zoos and

parks. These can be grouped as follows according to their country of origin:

Country	Years	Total	Alive in 1994	Subspecies
Angola	1914-1965	4	0	<i>niger</i>
Namibia	1959-1965	8	1	<i>niger</i>
South Africa	1947-1990	10	5	<i>minor</i>
Zimbabwe	1914-1992	47	30	<i>minor</i>
Zambia	1925	1	0	<i>minor</i>
Tanzania	1904-1976	58	1	<i>minor/michaeli</i>
Kenya	1908-1983	113	36	<i>michaeli</i>
East Africa	1906-1970	26	4	<i>minor/michaeli</i>
Ethiopia	1870-1907	2	0	<i>brucii</i>
Sudan	1868	1	0	<i>ladosensis</i>
Chad	1928-1929	3	0	<i>longipes</i>
Unknown/Unrecorded		210	14	
Total		483	90	

Table 32. Origin of imported black rhinoceros according to subspecies, and their progeny

	Imports	Births first generation	Births second generation	Alive in 1994
<i>Subspecies not determined:</i>				
uncertain origin	210	57	13	50
East Africa	26	10	1	7
<i>Diceros bicornis michaeli</i>				
Kenya	113	103	27	120
Tanzania	58	5	0	1
<i>Diceros bicornis minor</i>				
South Africa	10	6	0	8
Zimbabwe	47	8	0	36
<i>Other subspecies</i>				
Angola	4	4	0	0
Namibia	8	4	1	5

Table 33. Locations of births in the black rhinoceros (1941-1994)

Continent	No. of births	Year of first birth	No. of countries	Leading country
Africa	4	1965 (Tanzania)	3	South Africa (2)
Asia	47	1962 (Sri Lanka)	5	Japan (26)
Australia	9	1958 (Australia)	1	
Europe	89	1956 (Germany)	9	UK (33)
N. America	136	1941 (USA)	2	USA (133)
S/C. America	7	1954 (Brazil)	2	Argentina (4)

### Countries:

Africa	Nigeria, South Africa, Tanzania
Asia	China, India, Iran, Japan, Sri Lanka
Australia	
Europe	Croatia, Czech Republic, Germany, Ireland, Italy, the Netherlands, Portugal, Switzerland, UK
South/Central America	Argentina, Brazil
North America	Canada, USA





Fig. 104. Young black rhinoceros in Mysore in October 1993.

Of 273 animals from known localities, 194 (or 71%) came from East Africa, Kenya and Tanzania. It seems that, from the beginning of this century until the end of the 1970s, these countries supplied most of the captive population. Rhinos were common in those days and several animal dealers such as Ruhe and Hagenbeck had set up their own facilities in the region. The importation of rhinos from South Africa, and especially from Zimbabwe, is a more recent trend. The majority of the 58 rhinos from this region (20% of the total) were caught in 1984 or later.

Not all specimens can be definitely allocated to a subspecies of the black rhinoceros. In Tanzania, *D.b. minor* and *D.b. michaeli* border somewhere in the Serengeti/Ngorongoro region. Most, if not all, black rhinos from Tanzania are caught in this general Northern area, but the exact locality is very rarely recorded. Quite a number of specimens are said to come from 'East Africa', and this is vague enough to cause the same problem as Tanzanian rhinos. It must also be remembered that another subspecies (*D.b. ladoensis*) occurs in Western Kenya and in Uganda. The specimens said to be from 'Namibia' may actually be from other places in Southern Africa, as some of these records may refer to a dealer such as Schulz who had a more or less permanent station in Okahandja, Namibia.

It is certainly rather unfortunate that in 210 cases (43%) the country of origin does not seem to have been recorded. Of course, that information is often available somewhere, in zoo archives or old newspapers, but few zoos have actually taken the time to research this aspect thoroughly. Although it may be argued that only 14 of these rhinos are still alive

today, it must also be remembered that mothers of unknown or uncertain origin produced 67 births and 14 second-generation births, of which 35 offspring are alive today. If there were to be a serious attempt to breed separate populations of the black rhinoceros in captivity, all these animals of uncertain origin are *de facto* ineffective for the conservation of the species through captive breeding.

### Subspecies and captive populations

At the African Rhino Workshop in Cincinnati in October 1986, it was proposed that future conservation programmes should not mix the four population groups described above. At the same time, there was a recommendation "to establish viable foundations in captivity of the three conservation units of black rhinos not presently represented well in zoos" (*Pachyderm*, Nr. 9: 2). These foundations contain at least 20 [breeding-age] animals. The only group established in captivity at that time was the 'Eastern Group' with animals from Kenya and Northern Tanzania. In fact, among the animals from known localities, only very few had come from other countries. Since that time, several specimens have been imported from South Africa and Zimbabwe, to form the foundation of the 'South-Central Group'. There have been no new imports from the areas inhabited by the other two groups. The wild populations of the 'North-Western Group' are practically extinct, and it may now be very difficult to find even 20 founder animals. The 'South-Western Group' (Namibia) is still better represented in the wild.

The keepers of the black rhinoceros studbook (Klös and Frese 1987) mentioned the Workshop's recommendations. They also attempted to separate those animals already entered in the studbook records. In the fourth (1991) and later editions of the black rhinoceros studbook, the records are divided into two groups called 'michaeli' and 'minor'. This use of subspecific names for the recommended 'conservation groups' was a rather unfortunate choice, because it gives the impression that the taxonomy of the species has finally been settled. However, the intention was good and the results are clear. Most specimens, even those of unknown origin, are maintained under 'michaeli', which is a reasonable assumption because most animals must have come from the general East African region.

However, in many cases, there is no proof that this actually was the case. The animals belonging to the other groups are combined under the heading 'minor'. The list in the sixth edition includes three specimens from Namibia (Nos. 11, 83, 89) and three from Angola (Nos. 113-115).

The total population of animals from several countries, combining the imports with the various births, can be calculated as shown in Table 32.

The table shows that 57 animals (25%) alive in 1994 cannot definitely be allocated to a subspecies or to one of the four conservation groups. The Namibian origin must be handled with care, as explained above. Two conservation groups, the 'Southern-central' and 'Eastern' are now well established in zoos and, with proper management, there is good hope that a viable population can be maintained.

### Births in captivity

In total, 292 black rhinos were born in captivity between 1941 and 1994. The first birth occurred at Brookfield Zoo, Chicago, on 7th October, 1941. The parents had been imported from Tanzania in 1935. Up to the end of the 1960s, black rhinoceros births would remain exceptional. However, since that time, with the increased captive population and emphasis on providing good breeding facilities, the number of births has slowly increased.

Births occurred all over the world, with the most taking place in the USA (Table 33).

There have been 365 female black rhinos in captivity since 1868 (231 imported from the wild, 134 born in captivity). Together, these females only produced 292 calves. It is, of course, obvious that not all female rhinos in captivity actually have the chance to produce young. Many have been kept in solitary confinement, or they died soon after arrival, or when they were still very young. I have tried to calculate how many females have lived in zoos in a situation where they could be mated. It is, of course, very difficult to be totally accurate, because some zoos may keep the animals in separate enclosures, or the animals may have been too young or too old for successful mating, or there may have been illness, etc. These circumstances apart, I found that about 220 females had lived in a captive situation where they could have bred. Of these, 95 had actually given birth at least once. This means that 43% of the females were productive. It is not easy to know whether this is an unnaturally low percentage, and if so, what could be the cause. Almost all black rhinos are kept in situations where a zoo has one male and one female, or sometimes one male and two females. When black rhinos are kept in larger groups, this does not affect their reproductive ability in a positive manner. Many pairs have been kept together for long periods without success, while others in similar conditions frequently produce young.

Table 34. Collections where the black rhinoceros has been exhibited (1858-1994), arranged by country in each continent

Country	Total places	Year and place of first rhino	Largest (>5) No. (zoo + total No.)
<i>Africa</i>			
Egypt	1	1910 Cairo	Cairo: 8
Kenya	8	1950 Rumuruti	Nairobi: 8
Namibia	1	1963 Okahandja	
Nigeria	2	1975 Maiduguri	
Somalia	1	1896 Expedition	
South Africa	6	1914 Johannesburg	Pretoria: 10
Tanzania	1	1964 Mwanza	
Zimbabwe	2	1962 Private	Private: 7
Total: 8 countries, 22 collections. First import 1896 into Somalia			
<i>Asia</i>			
China	2	1957 Beijing	
India	3	1956 Mysore	Mysore: 11
Iran	1	1964 Teheran	Teheran: 7

<i>Country</i>	<i>Total places</i>	<i>Year and place of first rhino</i>	<i>Largest (&gt;5) No. (zoo + total No.)</i>
Israel	2	1963 Jerusalem	
Japan	14	1933 Tokyo Ueno	Hiroshima: 14
Kazakhstan	1	1970 Alma Ata	
Malaysia	1	1968 Kuala Lumpur	
North Korea	1	1985 Pyongyang	
Philippines	1	1959 Manila	
South Korea	2	1966 Pusan	
Sri Lanka	1	1955 Colombo	Colombo: 6
Taiwan	1	1986 Taipei	
Thailand	1	1955 Bangkok	
Total: 13 countries, 31 collections. First import 1933 into Japan			
Australia	6	1914 Melbourne	Sydney: 23
Total: 1 country, 6 collections. First import 1914			
<i>Europe</i>			
General	1		
Austria	1	1931 Vienna	
Belarus	1	1973 Grodno	
Belgium	1	1858/1949 Antwerp	
Croatia	2	1962 Zagreb	
Czech Republic	3	1932 Prague	Dvur Kralove: 33
Denmark	1	1933 Copenhagen	
Estonia	1	1988 Tallinn	
France	5	1880 Paris (Jardin)	
Germany	20	1870 Berlin Zoo	Berlin Zoo: 28
Hungary	2	1929 Budapest	
Ireland	1	1960 Dublin	Dublin: 7
Italy	5	1910 Rome	Naples: 10
The Netherlands	3	1931 Rotterdam	Amsterdam: 10
Poland	2	1888 Wroclaw	Wroclaw: 6
Portugal	1	1955 Lisbon	Lisbon: 8
Russia	2	1909 St Petersburg	
Spain	3	1956 (?) Madrid	
Sweden	1	1961 Private	
Switzerland	3	1935 Basel	Zurich: 15
Ukraine	1	1947 Kiev	
UK	12	1868 London	London: 21
Total: 21 countries, 72 collections. First import 1868 into UK			
<i>North America</i>			
Canada	3	1959 Granby	Granby: 7
<i>USA</i>			
Countrywide	2	1870 Circus	
California	7	1933 Hollywood	San Diego WAP: 15
Colorado	2	1956 Colorado	Denver: 17
DC	1	1923 Washington	Washington: 12
Florida	5	1960 Jacksonville	Miami: 14
Georgia	1	1967 Atlanta	
Illinois	2	1933 Chicago Brookfield	Chicago Brookfield: 19
Indiana	1	1956 Evansville	
Kansas	2	1972 Wichita	Wichita: 9
Massachusetts	1	1973 Boston	
Michigan	3	1929 Holland	Detroit: 15
Minnesota	1	1964 Duluth	
Missouri	2	1929 St Louis	St Louis: 16
New Hampshire	1	1933 Nashua	

Country	Total places	Year and place of first rhino	Largest (>5) No. (zoo + total No.)
New York	4	1886 NY Central	Buffalo: 6
North Carolina	1	1974 Asheboro	
Ohio	4	1926 Toledo	Cincinnati: 22
Oklahoma	2	1963 Oklahoma	Oklahoma: 16
Pennsylvania	2	1912 Philadelphia	Pittsburgh: 8
Rhode Island	1	1958 Pawtucket	
South Carolina	1	1991 Columbia	
Tennessee	1	1958 Memphis	Memphis: 7
Texas	8	1953 San Antonio	San Antonio: 11
Washington	1	1988 Portland	
Wisconsin	1	1943 Milwaukee	Milwaukee: 6
Total: 2 countries, 60 collections. First import 1870 in USA (circus)			
<i>South America</i>			
Argentina	3	1938 Buenos Aires	Buenos Aires: 8
Brazil	4	1949 Rio de Janeiro	
Cuba	1	1976 Havana	
Dominican Republic	1	1960 Santo Domingo	
Mexico	3	1953 Mexico City	
Total: 5 countries, 12 collections. First import 1938 into Argentina			
<i>World total:</i> 50 countries, 203 collections			

Table 35. Population changes from 1850 to 1994 in the black rhinoceros. Numbers show total (male/female/sex unknown)

Period	Imported animals	Captive births	Deaths	Total animals at end of period	Captive born population
1850-1899	13 ( 2/ 2/ 9)		12 ( 2/ 1/ 9)	1 ( 0/ 1)	
1900-1909	11 ( 4/ 6/ 1)		3 ( 0/ 3)	9 ( 4/ 4/ 1)	
1910-1919	11 ( 5/ 4/ 2)		16 ( 7/ 6/ 3)	4 ( 2/ 2)	
1920-1929	20 (11/ 9)		8 ( 6/ 2)	16 ( 7/ 9)	
1930-1939	35 (20/13/ 2)		18 ( 7/ 9/ 2)	33 (20/13)	
1940-1949	34 (12/20/ 2)	2 ( 2/ 0)	29 (15/13/ 1)	40 (19/20/ 1)	2 ( 2/ 0)
1950-1959	127 (63/55/ 9)	10 ( 6/ 4)	70 (40/20/10)	107 (48/59)	6 ( 2/ 4)
1960-1969	107 (56/50/ 1)	45 (23/18/ 4)	112 (50/57/ 5)	147 (77/70)	33 (18/15)
1970-1979	66 (26/40)	80 (37/41/ 2)	113 (58/53/ 2)	180 (82/98)	73 (35/38)
1980-1989	32 (15/17)	88 (42/43/ 3)	102 (54/45/ 3)	198 (85/113)	106 (50/56)
1990-1994	27 (12/15)	67 (35/28/ 4)	56 (29/24/ 3)	236 (103/132/ 1)	142 (70/71/1)
Totals	483 (226/231/26)	292 (145/134/13)	539 (268/233/38)		

### Chronological list of all known specimens of *Diceros bicornis* in captivity

This is a list of all known or likely specimens of the black rhinoceros, irrespective of subspecies, kept in captivity from early times until 1995. The first column gives the studbook number according to Klös and Frese (1993), with data up to December 1993. The second

column gives the 'status' of the animal (W: imported from the wild; B: born in captivity; B+: captive stillbirth). The third column shows the sex (M: male; F: female; no entry: sex unknown). The final column 'history' starts with the year of arrival or birth, followed by the name of the place where the collection is located. In case of transfer, this is followed by another year and collection. If the line ends

with a date, the animal has died. If the line ends with a collection, it is presumed still alive in 1995.

<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
	W	M	1858 Antwerp (?)
	W	M	1868 London 1891
	W	F	1870 Berlin Zoo 1884/87
	W		1872 USA: Frost 1880
	W		1877 USA: Montgomery 1885
	W		1878 Hagenbeck Show (?)
	W		1878 Hagenbeck Show 1881 Hamburg 1882 Hagenbeck Show (?)
	W		1878 Hagenbeck Show 1880 Germany: Bach (?)
	W		1878 Hagenbeck Show 1888 Wroclaw 1892
	W	F	1878 USA: Cole 1886 New York Central Park 1907
	W	M	1880 Paris Jardin 1892
	W		1889 USA: Robinson (?)
	W		1896 Somaliland, died in transit to Warsaw 1896
	W	F	1904 Berlin Zoo 1908
	W		1905 USA: Barnum 1913
547	W	F	1906 New York Bronx 1931
	W	F	1906 London 1911
	W	F	1906 Wroclaw 1907
	W	M	1906 New York Bronx 1910
	W	F	1907 Berlin Zoo 1917
	W	F	1908 Cologne 1914
	W	M	1909 St. Petersburg 1909 Berlin Zoo 1910
	W	M	1909 USA: Ringling 1918
	W	M	1909 Frankfurt/M 1917
	W	F	1910 Cairo 1918
	W	M	1910 Rome 1915
	W	M	1911 Hamburg Hagenbeck 1913
	W	F	1911 Hamburg Hagenbeck 1913
548	W	M	1911 London 1924
	W		1912 Hamburg Hagenbeck (?)
	W	F	1912 Philadelphia 1917
	W	M	1914 Johannesburg 1948
	W	M	1914 Hamburg Hagenbeck 1916
	W		1914 Melbourne 1915
536	W	F	1914 Pretoria 1942
	W	M	1922 Edinburgh 1923
	W	F	1922 London 1938 to unknown destination (?)
	W	M	1923 Washington 1925
	W	F	1924 Johannesburg 1948
	W	M	1925 Hamburg Hagenbeck (?)
	W	M	1926 Hannover 1935 Basel 1935
	W	F	1926 Toledo 1940
	W	M	1927 Frankfurt/M 1945
549	W	M	1928 Berlin Zoo 1943
	W	F	1928 London 1939 Whipsnade 1939
	W	M	1928 Dresden 1944
	W	F	1928 Dresden 1936
	W	M	1929 Adelaide 1929
	W	F	1929 Adelaide 1929
	W	F	1929 Holland 1933 Chicago Br. 1933
	W	F	1929 Leipzig 1929 Chemnitz 1930 to unknown destination (?)
	W	M	1929 St Louis 1929
	W	M	1929 Budapest 1941
	W	F	1929 Nuremberg 1929 to unknown destination (?)
	W	M	1929 USA: Ringling 1935
	W	F	1930 USA: Ringling 1933/34
	W	M	1930 Detroit 1956
	W	F	1930 Detroit 1955
	W	M	1930 Washington 1943
	W	M	1930 Rome 1942
	W	F	1930 Rome 1942
	W	F	1931 Hamburg Hagenbeck 1932 New York Bronx 1941
	W	M	1931 Vienna 1945
	W		1931 Hamburg Hagenbeck (?)
	W	M	1931 Amsterdam 1934 Chicago Br. 1943 Milwaukee 1957
	W	M	1931 Rotterdam 1943
	W	F	1931 Amsterdam (?) to unknown destination (?)
	W	M	1931 Cairo 1942
	W	M	1931 Antwerp 1931
	W	F	1932 Cairo 1941
	W	F	1932 Cairo 1943
	W	M	1932 Wroclaw 1932
	W	M	1932 Prague 1937
	W	F	1933 Nashua 1933 Hollywood 1934 USA: Ringling 1935
	W	M	1933 Copenhagen 1933 to unknown destination (?)
	W	M	1933 Paris Vincennes 1944
	W		1933 Hagenbeck Circus 1933 Tokyo 1933 to unknown destination (?)



<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>	<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
060	W	M	1935 Chicago Brookfield 1967	031	W	M	1949 Zurich 1983
061	W	F	1935 Chicago Brookfield 1980	033	W	F	1949 Zurich 1982
	W	M	1935 Cincinnati 1956		W	M	1949 Rapperswil 1954 Basel
	W	M	1937 Amsterdam 1959				1955 Rapperswil: Circus Knie (?)
	W	F	1937 Amsterdam 1945		W		1949 USA: Kelly 1953
	W	M	1937 Manchester 1937	099	W	M	1950 Sydney 1978
	W	M	1937 Manchester 1940	510	W	F	1950 Sydney 1966
	W	M	1938 Buenos Aires 1952	511	W	F	1950 Sydney 1950
010	W	M	1938 Copenhagen 1969	005	W	M	1950 Frankfurt/M 1978
122	W	F	1938 St Louis 1969		W	F	1950 Rotterdam 1962
123	W	F	1938 St Louis 1968				Arnhem (?)
503	W	M	1938 Sydney 1947		W	M	1951 Cairo 1952
504	W	F	1938 Sydney 1943		W	F	1951 Cairo 1960
	W	F	1940 Berlin Zoo 1940 to unknown destination (?)		W	M	1951 Arnhem 1958
					W	F	1951 Arnhem 1951
	W	F	1940 Berlin Zoo 1941	096	W	F	1951 Perth 1981 Sydney
	W	M	1940 New York Central Park 1941 New York Bronx 1954				1991 Dubbo 1995
	W		1940 St Petersburg 1941	543	W	F	1951 Frankfurt/M 1952
	W	F	1941 Leipzig 1947 Kiev 1959		W	M	1951 Naples 1952
556	B	M	1941 Chicago Brookfield 1943 Pittsburgh 1952		W	M	1951 Naples 1954 France: Cirque Hiver (?)
	W	F	1941 Columbus 1963		W	M	1951 Wuppertal 1952
	W	F	1942 Vienna 1967		W	M	1951 Washington 1957
537	W	M	1944 Pretoria 1955		W	M	1952 Edinburgh 1952
531	B	M	1944 Chicago Brookfield 1945 USA: Ringling 1953		W	F	1952 Edinburgh 1954
					W	F	1952 Germany: Holzmüller (?)
550	W	M	1946 London 1946		W	M	1952 Vienna 1953
196	W	F	1947 Sydney 1974		W	F	1952 Vienna 1965
097	W	M	1947 Sydney 1947 Adelaide 1981 Sydney 1982		W	M	1952 Paris Vincennes 1961
					W	M	1952 Tokyo 1964
505	W	M	1947 Sydney 1951	544	W	F	1952 Frankfurt/M 1963
506	W	F	1947 Sydney 1953	078	W	F	1952 San Diego 1985
	W	F	1947 Manchester 1947	020	W	M	1952 Bristol 1972
551	W	F	1947 London 1964	021	W	F	1952 Bristol 1971
112	W	M	1948 Philadelphia 1972		W	M	1952 Johannesburg 1953
	W	F	1948 Philadelphia 1966		W	F	1952 USA: Diana Bros 1960
508	W	F	1948 Sydney 1955		W		1953 Germany: Brumbach (?)
507	W	F	1948 Sydney 1963		W		1953 Japan: [circus] (?)
	W	F	1948 Washington 1948 to unknown destination (?)		W	M	1953 Kobe 1953 Japan: Kinoshita (?)
					W	M	1953 Washington 1957
	W	F	1948 Amsterdam 1964		W	F	1953 Washington 1959
509	W	M	1948 Sydney 1950 Melbourne (?)		W	M	1953 Cologne 1957
					W	M	1953 Antwerp 1964
100	W	F	1948 Sydney 1974		W	M	1953 Manchester 1957
	W	M	1948 Washington 1951	077	W	M	1953 San Diego 1968
117	W	F	1948 Buenos Aires 1970		W		1953 Germany: Brumbach (?)
	W	F	1948 Toledo 1966		W		1953 Japan: Shibatu (?)
	W	M	1949 Mendoza (?)	555	W	M	1953 Buenos Aires 1964
	W	M	1949 Rio de Janeiro 1958		W	F	1953 Pretoria 1966
	W	F	1949 Rio de Janeiro 1965		W	F	1953 Chester 1953
	W	F	1949 Antwerp 1956		W	M	1953 Mexico City 1963
					W	M	1953 San Antonio 1962
					B	F	1954 Rio de Janeiro 1962
					W	M	1954 Hamburg Hagenbeck 1954

<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>	<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
	W	M	1954 Hamburg Hagenbeck 1954		W	M	Oklahoma 1981
	W	F	1954 Hamburg Hagenbeck 1955		W	F	1956 Colorado Springs 1956
048	W	M	1954 Pittsburgh 1974				1956 Colorado Springs 1957 to unknown destination (?)
049	W	F	1954 Pittsburgh 1968		W	M	1956 Evansville 1962
	W	F	1954 Nagoya 1956	478	W	M	1956 Fort Worth 1959
	W		1954 Germany: Brumbach (?)	016	W	F	1956 Antwerp 1969
039	W	M	1954 Wuppertal 1954 Vienna 1990		W	M	1956 Dallas 1957
	W	F	1954 Hannover 1954		W	F	1956 Nagoya 1966 Fukuoka 1967
105	W	F	1954 Moscow 1971	004	W	F	1956 Berlin Tierpark 1970
409	W	M	1954 New York: Prospect 1988 Detroit		W	M	1956 Berlin Tierpark 1959
	W	F	1954 New York: Prospect 1956	067	W	F	1956 Dallas 1993
	W	F	1954 Manchester 1960	074	W	M	1956 San Francisco 1991
002	W	F	1954 Berlin Zoo 1976 Jos 1977		W	F	1956 Fukuoka 1965
042	W	M	1954 Prague 1969	545	B	M	1956 Frankfurt/M 1957 La Plata 1959
068	W	M	1954 Columbus		W	F	1956 Madrid (?)
479	W	F	1954 Fort Worth 1964	135	W	M	1956 San Antonio 1977
	W	F	1955 Colombo 1962	056	W	M	1957 Cincinnati 1989
	W	M	1955 France: Amar (?)				Oklahoma 1989
	W		1955 Germany: Brumbach (?)	057	W	F	1957 Cincinnati 1971
090	W	M	1955 Osaka 1961		W	M	1957 Detroit 1966
	W		1955 Germany: Brumbach (?)		W	F	1957 Detroit 1964
113	W	M	1955 Lisbon 1983	071	W	M	1957 Colorado Springs 1982
045	W	M	1955 New York Bronx 1975 Pittsburgh 1976 New York Bronx 1976		W	F	1957 Colorado Springs 1963
	W	M	1955 USA: Cole 1965 Mexico: Bell's Brothers 1968		W	F	1957 Tokyo 1966 To Pusan (?)
	W		1955 USA: Kelly 1955		W		1957 Germany: Brumbach (?)
	W	M	1955 Rotterdam 1962	001	W	M	1957 Berlin Zoo 1975
051	W	M	1955 Cleveland 1975	044	W	M	1957 St Petersburg 1973
	W	F	1955 Cleveland 1962				Grodno 1982
130	W	M	1955 Munich 1974 Sao Paulo 1975	276	W	M	1957 Beijing 1971
131	W	F	1955 Munich 1974 Sao Paulo 1975	263	W	F	1957 Beijing
303	W	M	1955 Bangkok 1985		W	F	1957 Dresden 1961
	W	M	1955 Sapporo 1968	118	B	M	1958 Buenos Aires 1973
	W	M	1955 USA: Ringling 1958 Pawtucket 1958		B	F	1958 Rio de Janeiro 1961
	W	F	1955 USA: Ringling 1958 Memphis 1966	320	W	M	1958 Fukuoka 1976
	W	F	1955 Mexico City 1959				Kagoshima 1986
086	W	M	1956 Mysore 1983	024	B	M	Nagoya 1988
087	W	F	1956 Mysore 1986				Yoshikawa 1988
	B	M	1956 Rio de Janeiro 1956	197	B	F	1958 Bristol 1960 Chester 1980
	B	M	1956 Buenos Aires 1956	114	W	F	1958 Sydney 1991 Dubbo
	W	F	1956 Tokyo 1956	512	B+	M	1958 Lisbon 1982
063	W	F	1956 Chicago Brookfield 1963 Kansas City 1972 Wichita 1974	043	W	F	1958 Sydney 1958
				006	B	F	1958 Prague 1972
				554	W	F	1958 Frankfurt/M 1971
					W	F	1959 Kobe 1966
					W	M	1959 Arnhem (?)
					W	M	1959 Barcelona 1963
				089	W	M	1959 Manila 1975
					W	F	1959 Manila 1960
				092	W	M	1959 Kobe 1970
					W	F	1959 Granby 1962
					W	M	1959 Amsterdam 1960
				012	W	F	1959 Amsterdam 1967
				025	W	F	1959 Chester 1975

<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>	<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
030	W	F	1959 Paris Vincennes 1974	119	B	F	1962 Buenos Aires 1973
066	W	M	1959 Dallas 1986	054	B	M	1962 Detroit 1963
	W	M	1959 USA: Cristiani 1960		W	M	Oklahoma 1986
070	W	F	1960 Jacksonville 1970				1962 Zimbabwe: Salisbury
124	W	M	1960 Denver 1984 Garden City 1987				1962 released into wild
125	W	F	1960 Denver 1984 Garden City 1990	038	W	F	1962 Naples 1968 Atlanta 1988 Miami 1989
	B+		1960 Cincinnati 1960	065	W	M	1962 Thousand Oaks 1963
	W	M	1960 Santo Domingo 1961				Fresno 1964 Memphis 1967
	W	F	1960 Santo Domingo 1963	553	W	F	1962 Thousand Oaks 1963
513	B	F	1960 Sydney 1966				Fresno 1963
	W	M	1960 Whipsnade 1962		B+	M	1962 Colombo 1962
	W	F	1960 Whipsnade 1960		W	F	1962 Zagreb (?)
	W	F	1960 Whipsnade 1960 to unknown destination (?)	102	B	F	1963 Sydney 1969 Australia: Ashton 1975 Melbourne 1978
	W	M	1960 Barcelona 1963	083	W	M	1963 Pretoria 1979
	W	M	1960 Berlin Tierpark 1960		W	M	1963 Pretoria 1963
	W	F	1960 Osaka 1961	064	B	M	1963 Pittsburgh 1964
046	W	M	1960 Washington 1979				Duluth 1977
029	B	F	1960 Rotterdam 1962	107	W	M	1963 Barcelona 1970 Berlin Tierpark 1970
			Dublin 1976	108	W	F	1963 Barcelona 1964
	W	M	1960 Dublin 1962	018	W	M	1963 Whipsnade/London 1988 Port Lympne 1991
008	W	F	1960 Hannover 1986	019	W	F	1963 Whipsnade 1988
	W	M	1960 Spain: Dali (?)				London 1989 Port Lympne 1995
	W	F	1960 Spain: Dali (?)	011	W	M	1963 Amsterdam 1969
	W	M	1960 Dresden 1965 to unknown destination (?)	098	B	M	1963 Kobe 1964 Nagoya 1970
037	W	F	1960 Naples	085	W	M	1963 Jerusalem 1968
	W	M	1960 Kansas City 1961 to unknown destination (?)		W	F	1963 Jerusalem (?)
					W	F	1963 Okahandja 1966
069	W	F	1960 Kansas City 1960		W	F	1963 Okahandja 1966
	B	M	1960 Pittsburgh 1961	036	W	M	1964 Naples
			Jacksonville 1970	027	W	F	1964 Manchester 1975
132	W	M	1960 Colombo	023	B	F	1964 Bristol 1971
080	W	M	1960 Cairo		W	M	1964 Fresno 1965
081	W	F	1960 Cairo 1970	073	W	F	1964 Fresno 1970
	W	M	1960 Kenya: Sheldrick (?) released into Solio 1992	058	B	M	1964 Cincinnati 1970
					W	F	1964 Mwanza 1966
	W	M	1960 Kenya: Voi 1970	082	W	M	1964 Mwanza 1967
	W	F	1960 Mexico City 1963	041	W	F	1964 Zagreb 1981
	W	M	1961 Amsterdam 1963		B	F	1964 Detroit 1965
062	W	M	1961 Kansas City 1972		W	M	1964 Southampton 1965 to unknown destination (?)
	W	F	1961 Kansas City 1961				
007	W	M	1961 Hannover 1973	158	W	M	1964 Teheran
	W	F	1961 Arnhem 1961	264	B	F	1965 Beijing 1990
091	W	F	1961 Osaka 1965 Kanazawa 1974	185	W	F	1965 Osaka 1977 Hitachi
055	B	F	1961 Cincinnati 1963	101	B	F	1965 Sydney 1980
			Oklahoma 1985	032	W	F	1965 Zurich
			Detroit 1994		B		1965 Mwanza 1965
047	W	F	1961 Washington 1978	115	W	M	1965 Lisbon 1967 Sao Paulo 1971
003	W	M	1961 Berlin Tierpark 1969	120	W	M	1965 St Louis 1976
	W	M	1961 Boras: Berggren 1961				
028	B	M	1961 Bristol 1963 Dublin 1971				

<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>	<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
121	W	F	1965 St Louis 1991 Oklahoma 1993	103	B	M	1967 Chester 1970 Alma Ata 1989
022	B	M	1965 Hannover 1966 Bristol 1978 London 1978 Whipsnade 1984	059	B	M	1967 Cincinnati 1968 to unknown destination (?)
	W	M	1965 Fresno 1965	111	W	F	1967 Berlin Tierpark 1983 died in transit 1983
184	W	M	1965 Osaka 1974		W	M	1967 Kenya: Sheldrick 1972
514	B	F	1965 Sydney 1965	104	B	F	1968 Hannover 1969 Budapest 1983 San Diego WAP 1984
162	W	M	1965 Wroclaw 1972	126	B	F	1968 Denver 1969 Memphis 1979
116	B	M	1965 Lisbon 1974 Gelsenkirchen 1974	109	B	M	1968 Pittsburgh 1969 Memphis 1969
053	W	F	1965 Detroit 1985 Oklahoma 1988 Wichita		W	M	1968 Thoiry (?)
050	B	M	1965 Pittsburgh 1967 Atlanta 1972	167	W	F	1968 Thoiry 1971 Leipzig 1986
094	B	M	1965 Kobe 1968	138	B	F	1968 Oklahoma 1969 Tampa 1971
013	W	M	1966 Arnhem 1969	236	W	F	1968 Nagoya 1991
014	W	F	1966 Arnhem 1970 Alma Ata 1971	237	W	F	1968 Nagoya 1992
	B+	M	1966 Denver 1966	127	B	F	1968 Bristol 1969
076	W	F	1966 Los Angeles	253	W	M	1968 Kuala Lumpur
095	W	F	1966 Nagoya 1968 to unknown destination (?)	134	B	F	1968 Colombo
079	W	M	1966 Granby 1986	215	W	M	1968 Cleethorpes 1973 Dublin 1976
009	W	M	1966 Gelsenkirchen 1967 Hannover 1967 Magdeburg 1994 Berlin Zoo	159	W	F	1968 Teheran
034	W	M	1966 Torino 1972 Atlanta 1987	168	B	M	1969 Lisbon 1972 Sao Leopoldo 1979
026	W	M	1966 Manchester 1974	155	W	M	1969 Tampa 1985
016	W	M	1966 London 1973	146	W	M	1969 San Diego 1980
017	W	F	1966 London 1991 Port Lympne 1991	143	W	F	1969 Granby 1970
148	W	M	1966 Lodz 1985 Sao Leopoldo 1986	325	W	F	1969 Hitachi 1974
088	B	M	1966 Mysore 1968	324	W	M	1969 Hitachi 1969
128	W	M	1966 Ramat-Gan 1989 Sandton	142	B	M	1969 Dublin 1971 Bekesbourne 1980 Port Lympne 1991
129	W	F	1966 Ramat-Gan 1983	141	B	M	1969 Kobe 1978 Wakayama 1980
133	W	F	1966 Colombo	326	W	M	1969 Kumamoto 1971 Hitachi 1973
151	W	M	1966 Granby 1968 Los Angeles 1979		B	M	1969 Kansas City 1969
075	W	F	1967 San Francisco 1973	137	B	F	1969 Frankfurt/M 1981
084	W	F	1967 Pretoria 1972	136	B	M	1969 Pretoria 1972 Johannesburg 1987
205	W	F	1967 Amsterdam 1978 Kuala Lumpur 1979	190	B	F	1969 London 1972 Dublin 1974/76 San Antonio
040	W	M	1967 Zagreb 1982		W		1969 Kenya: Nairobi (?)
093	W	F	1967 Kobe 1977	139	B	F	1970 Washington 1980
106	B	M	1967 Sydney 1972	152	B	F	1970 Los Angeles 1970 Columbus 1971
	B+		1967 Frankfurt/M 1967	180	B	F	1970 Cincinnati 1989 Columbus 1990 Cincinnati 1993
052	W	M	1967 Detroit 1985 Miami 1988	179	B	F	1970 St Louis 1971 Memphis 1982 San Diego WAP 1982
072	W	F	1967 Colorado Springs 1983	140	B	F	1970 Bristol 1971
515	B+	F	1967 Sydney 1967				
	B+		1967 Kansas City 1967				
110	B	M	1967 Washington 1970 San Diego WAP 1983 San				

Studbook No.	Status	Sex	History	Studbook No.	Status	Sex	History
035	W	F	1970 Torino 1972 Alma Ata 1990 Tallinn	192	B	F	1972 Oklahoma 1973 Wichita 1988 San Diego
145	B	M	1970 Hannover 1981 Zurich 1983 Hannover 1985	187	B	F	1972 Colorado Springs 1986
150	B	F	1970 Zurich	238	W	M	1972 Nagoya 1986
153	W	F	1970 Magdeburg	247	W	M	1972 Cincinnati
265	B	F	1970 Beijing	189	B	M	1972 Detroit 1973 Wichita 1978
	W	F	1970 Kenya: Sheldrick 1976 released into Solio	193	W	F	1972 Wroclaw 1979
290	B	F	1970 Colorado Springs 1972	188	W	F	1972 San Diego WAP 1982 San Diego 1989 Columbus 1992
157	B	M	1970 Whipsnade 1972 Dublin 1973	223	B	M	1972 Mysore 1994
156	B	F	1970 Zagreb 1972 Osijek 1972	321	W	F	1972 Kagoshima 1983
	B+		1970 Kansas City 1970		W	F	1972 Kumamoto
147	W	F	1970 Southampton 1973 Bristol 1981 Chester 1983	191	B	F	1972 London 1973 Paignton 1974
163	B	F	1971 Denver 1995		B+		1972 Hiroshima 1972
164	B	M	1971 Chester 1973 Paignton 1981 Chester 1987 London 1990 Port Lympne	231	B	F	1973 Buenos Aires 1993
				293	W	F	1973 Granby 1986
160	B	M	1971 Teheran	214	W	F	1973 San Antonio 1976
	W	M	1971 Kumamoto 1972	202	W	F	1973 Miami
182	W	M	1971 Hiroshima		W	M	1973 Kumamoto
181	W	F	1971 Hiroshima	207	W	F	1973 Cincinnati 1989
225	W	F	1971 Tampa 1990 Cincinnati	254	W	M	1973 Boston 1976 Buffalo 1983
194	W	F	1971 Bekebourne 1980 Port Lympne	255	W	F	1973 Boston 1976 Buffalo 1983 Miami
169	W	M	1971 Dvur Kralove 1972 Jacksonville 1978 San Antonio	256	W	F	1973 Boston 1976 Buffalo 1978
				198	B	M	1973 Whipsnade 1974
170	W	M	1971 Dvur Kralove 1979	203	W	M	1973 Naples 1974 Rome 1983
171	W	M	1971 Dvur Kralove 1976 Wroclaw 1980 Dvur Kralove 1983 Zurich 1988 Tallinn	199	W	M	1973 Memphis 1979
				233	W	F	1973 Chicago Brookfield 1986 San Diego WAP
172	W	M	1971 Dvur Kralove 1978	200	B	F	1973 Chester 1976
173	W	F	1971 Dvur Kralove 1978	234	W	M	1973 Chicago Brookfield 1978
174	W	F	1971 Dvur Kralove 1978	235	W	F	1973 Chicago Brookfield
175	W	F	1971 Dvur Kralove	261	W	M	1973 Oklahoma 1975 Delhi 1993
176	W	F	1971 Dvur Kralove 1972 Jacksonville 1978 Columbus 1982	262	W	F	1973 Oklahoma 1975 Delhi (?)
				313	B	F	1973 Teheran
177	W	F	1971 Dvur Kralove 1978	213	W	F	1974 San Francisco
178	W	F	1971 Dvur Kralove 1996	274	W	M	1974 Asheboro 1974
206	B	F	1971 Los Angeles 1972 San Diego WAP 1973 San Diego 1974	273	W	F	1974 Asheboro 1978 Buffalo 1980
				201	W	M	1974 Miami 1980
165	B	F	1971 Naples 1974 Rome	211	B	F	1974 Lisbon 1983
195	W	F	1971 Bekebourne 1980 Port Lympne	217	W	F	1974 Dvur Kralove 1983 Zurich
166	W	M	1971 Leipzig 1988 Berlin Zoo 1991	216	W	M	1974 Dvur Kralove 1976 Lesna 1978
296	W	M	1971 Mexico City	218	W	F	1974 Dvur Kralove 1976 Lesna 1979 Dvur Kralove 1981
297	W	F	1971 Mexico City				
161	B	M	1972 San Francisco 1973 Denver 1995	232	B	F	1974 St Louis 1975 Toronto 1977
183	B	F	1972 Osaka	275	W	M	1974 Asheboro 1977
186	B	F	1972 St Louis 1981				



<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>	<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
311	W	F	1974 Haines City 1984 Columbus 1986 Haines City 1986 Dallas 1994	250	B	M	1977 San Francisco 1978 Colombo
323	W	M	1974 Hitachi 1993	268	B	M	1977 Cincinnati 1978 Dvur Kralove
204	B	M	1974 Denver 1975 Toronto 1977	245	B	M	1977 Bekebourne 1980 Port Lympne 1990 London 1991 Port Lympne 1993
226	B	F	1974 Tampa 1978 St Felicien 1983	257	B	M	1977 Buffalo 1979 Tulsa 1980
228	W	M	1975 Maiduguri 1977	315	B	F	1977 Teheran
229	W	F	1975 Maiduguri	266	B	M	1978 Washington 1984 Seoul
240	W	F	1975 Verona 1977 Berlin Zoo	282	B	F	1978 Dvur Kralove
222	W	M	1975 Berlin Zoo 1976 Jos	270	B	F	1978 Naples 1982 Frankfurt/M 1986
221	W	F	1975 Berlin Zoo 1983	271	B	M	1978 Zurich 1980 Chicago Brookfield 1993
208	B	M	1975 Oklahoma 1976 Cleveland 1977	269	B	M	1978 London 1980 Winchester 1986
260	B	M	1975 Sydney 1988 Berlin Zoo 1992 Dvur Kralove	285	B	M	1978 Memphis 1979 Los Angeles
227	W	F	1975 Verona 1977 Veszprem 1979	272	B	M	1978 Miami 1979 Buenos Aires 1980
209	B	M	1975 Los Angeles 1976 Osaka 1984	277	B	M	1979 Magdeburg 1992 Dvur Kralove 1996
212	B	F	1975 Detroit 1984 St Louis		B	F	1979 Mysore 1992
219	W	M	1975 Berlin Zoo 1988	283	B	M	1979 Dvur Kralove
220	W	F	1975 Berlin Zoo	300	B+	M	1979 San Antonio 1979
224	B	F	1975 Mysore	287	B	F	1979 Nagoya 1982 Chengdu 1982
210	B	F	1975 London 1977 Chester 1978	329	B	M	1979 Delhi 1979
242	B	F	1975 Naples 1976 Fasano 1978 Sao Leopoldo 1991 Sandton	284	B	F	1979 Hiroshima 1987 Taipei
314	B	M	1975 Teheran 1984	278	B	F	1979 Whipsnade 1981 Winchester 1986
477	B	M	1976 San Francisco 1976	279	B	F	1979 Denver 1979
	B+	M	1976 San Antonio 1976	281	B	M	1979 San Francisco 1981 Detroit 1987
230	B	F	1976 Maiduguri	292	B	M	1979 Granby 1981 San Diego/WAP
241	W	M	1976 Zurich 1980	289	B	M	1980 Rome 1984
249	W	F	1976 Pretoria 1983 released into Addo N.P.	288	B	M	1980 Nagoya 1982 Chengdu 1982
251	W	M	1976 St Louis	301	B	M	1980 Cincinnati 1981 Wichita
267	B	F	1976 Cincinnati 1978 Columbus 1979 Los Angeles	306	B+	F	1980 Port Lympne 1980
239	B	F	1976 San Diego WAP 1991	302	B	M	1980 Cincinnati 1981 San Diego WAP 1994 Dubbo
243	B	M	1976 Tampa 1978 St Felicien 1982	316	B	F	1980 Teheran 1981
252	B	M	1976 St Louis 1978 Frankfurt/M 1987 Zurich	327	B+	F	1980 Hitachi 1980
299	W	F	1976 Havana	305	B	M	1981 Hiroshima 1983 Colorado Springs 1994
259	B	M	1977 Hiroshima 1983 Miami	322	B	M	1981 Kagoshima 1983
286	B	M	1977 Lisbon 1990	294	B	F	1981 San Antonio 1982 Chicago Brookfield
524	B+	F	1977 Whipsnade 1977	309	B	F	1981 Tampa 1982
529	B	M	1977 Los Angeles 1979 to unknown destination (?)	304	B+		1981 Denver 1981
291	B	M	1977 Kobe 1979 Beijing	295	B	F	1981 Magdeburg
246	B	F	1977 Denver 1978	308	B	M	1981 San Francisco 1982 Chicago Lincoln
244	B	F	1977 Dvur Kralove				
258	B	M	1977 Oklahoma 1979 Havana				

<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>	<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
298	B	F	1981 Berlin Zoo 1992				Miami
330	B	F	1981 Delhi 1989 Oklahoma 1991 St Louis 1994 San Diego WAP	355	B+	M	1985 Delhi 1985
319	B	M	1982 Oklahoma 1982	370	W	M	1985 Pyongyang
348	B+	M	1982 Buffalo 1982	371	W	M	1985 Pyongyang
310	B	F	1982 Berlin Zoo 1984	368	W	F	1985 Pyongyang
312	B	F	1982 London 1984 Chester	369	W	F	1985 Pyongyang
344	B	F	1982 Granby 1983 Seoul 1983	360	B	F	1985 Los Angeles 1988 Kansas City 1988
317	B	F	1982 Cincinnati 1984 Chicago Lincoln	361	B	M	1985 Detroit 1985
318	B	M	1982 Whipsnade 1984 Chester 1994 Port Lympe	357	B	M	1985 Frankfurt/M 1985
346	B	M	1982 Hiroshima 1989 Osaka	353	B	F	1985 St Louis 1986
328	B	F	1982 Denver 1996	363	B	M	1985 Cincinnati 1987 Chicago Brookfield
333	W	M	1982 Los Angeles 1994	364	B	F	1985 Cincinnati 1987 San Antonio
334	W	F	1982 Los Angeles 1993 Glen Rose 1994	358	B+	M	1985 Whipsnade 1985
331	B	F	1982 San Antonio 1983 San Francisco 1984 Kansas City 1987 Colorado Springs	359	B	F	1986 San Antonio 1987 Tyler
332	B	M	1983 Cincinnati 1984 Denver	356	B	M	1986 Tampa
343	B	F	1983 Tampa 1987	373	B+	M	1986 Hiroshima 1986
336	B	F	1983 Los Angeles	362	B	M	1986 Miami 1988 Tyler
525	B	M	1983 Mysore	381	B	M	1986 Los Angeles 1988 Oklahoma 1989 Milwaukee 1991 Columbia
339	W	M	1983 Potgietersrus	388	B	M	1986 Dvur Kralove 1989 Atlanta
338	W	M	1983 Pretoria 1985	374	B	F	1986 Hiroshima
340	W	F	1983 Pretoria 1983	366	B	F	1986 Berlin Zoo
352	B	M	1983 Osaka 1989 Nagoya	367	B	F	1986 St Louis 1987 Tyler 1990
345	B	F	1983 Naples	372	B	M	1986 Chicago Brookfield 1988 Tyler
341	B	M	1983 Port Lympe	382	B	F	1986 Miami 1989
337	B	M	1983 San Francisco 1984 Kansas City 1985	W	M		1986 Kenya: Sheldrick 1993 released into Tsavo East N.P.
342	B	F	1983 Port Lympe	375	B	F	1987 Berlin Zoo 1988
	W	M	1983 Kenya: Nairobi 1989 Kenya: Nanyuki	376	B	M	1987 Denver 1988 Portland
	W	F	1983 Kenya: Sheldrick (?) Released in Solio	377	B	M	1987 San Diego WAP 1990 San Diego 1990 Lansing 1994 San Francisco
350	B	M	1984 Nagoya 1986 Taipei 1994	380	B+	M	1987 Linn 1987
378	W	M	1984 Linn	390	W	M	1987 San Diego
379	W	F	1984 Linn	W	F		1987 Kenya: Sheldrick 1993 released into Tsavo East N.P.
416	W	M	1984 Glen Rose 1985	395	B	M	1988 Miami
415	W	F	1984 Glen Rose 1985	383	B	F	1988 San Francisco 1989 Milwaukee 1991 Columbia
	B	F	1984 Mysore 1984				1988 Hiroshima 1992 Yokohama
386	B	M	1984 Dvur Kralove 1992 Magdeburg 1995	420	B	M	1988 Hitachi 1991 Yokohama
354	B	F	1984 Hiroshima 1986 Taipei	421	B	F	1988 San Diego WAP 1989 Columbus
347	B	M	1984 Berlin Zoo 1995	389	B	M	1988 Cincinnati 1989 Columbus
349	B	M	1984 Zurich 1987 Frankfurt/M 1991 Hannover	397	B	F	
387	B	F	1984 Dvur Kralove				
365	B	F	1985 Chicago Brookfield				
351	B	F	1985 San Francisco 1987 Los Angeles 1987				

<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>	<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
396	B	F	1988 Chicago Br. 1990 Portland	444	B	F	1991 Chicago Br. 1992 Tampa 1993
	B	M	1988 Mysore	437	B	F	1991 Berlin Zoo 1994 Krefeld
384	B	F	1988 London	467	W	M	1991 Glen Rose 1994 Dubbo
385	B+	M	1988 Berlin Zoo 1988	469	W	M	1991 Glen Rose 1992
398	B	F	1989 Miami 1989	466	W	F	1991 Glen Rose
411	B	F	1989 Linn 1991 Fort Worth	470	W	F	1991 Glen Rose 1992
422	B	F	1989 Zurich 1992 Chester	440	B+		1991 Wichita 1991
418	B	F	1989 Detroit 1990 Tampa	438	B	M	1991 Dvur Kralove 1994 Krefeld
410	W	F	1989 Linn	445	B	F	1991 Hiroshima
391	B	M	1989 Dvur Kralove 1990 London	446	B+	M	1991 Linn 1991
419	B	M	1989 Chicago Lincoln 1990 Garden City	441	B+		1991 Miami 1991
399	W	M	1989 Dallas	443	B	M	1991 San Francisco
400	W	F	1989 Dallas 1995	450	B	M	1991 Dvur Kralove 1993 Leipzig
401	W	M	1989 Fort Worth 1991 Encino	459	B	M	1991 St Louis 1993 Oklahoma
402	W	F	1989 Fort Worth 1992 Linn	448	B	M	1991 Port Lympne
412	W	F	1989 Linn 1989	447	B	F	1991 Linn
413	W	M	1989 Encino 1989		B+		1991 Wichita 1991
414	W	F	1989 Encino	449	B+	M	1991 Port Lympne 1991
394	W	M	1989 Frankfurt/M		W	M	1991 Kenya: Sheldrick
393	W	F	1989 Frankfurt/M	526	B	F	1991 Mysore
404	W	M	1989 Milwaukee	481	B	F	1992 Dvur Kralove 1994 Leipzig
405	W	F	1989 Milwaukee	454	B	F	1992 Zurich
392	W	F	1989 San Diego	458	B	M	1992 Denver
403	B	M	1989 Fort Worth	465	W	M	1992 Santillana
424	W	F	1989 Encino	464	W	F	1992 Santillana 1996
417	B	F	1989 Dvur Kralove 1991 Hannover	471	W	M	1992 Yulee 1992
439	B+		1989 Wichita 1989	468	W	F	1992 Yulee
432	B	M	1989 Denver 1991 Tampa	461	W	F	1992 Encino
408	B	F	1989 Port Lympne	462	W	F	1992 Encino
425	B	M	1990 Port Lympne 1990	457	B	M	1992 Cincinnati 1994 Cleveland
423	B	F	1990 St Louis 1990	487	B+	F	1992 Linn 1992
426	B	F	1990 San Francisco 1990 Atlanta	483	B	M	1992 Port Lympne
427	B	M	1990 San Diego WAP 1994 Chicago Brookfield	473	B	M	1992 San Diego 1994 New York Bronx
433	B	F	1990 Dallas		W	M	1992 Lapalala
530	W	F	1990 Lisbon 1991 released into Kruger N.P.	495	W	M	1992 Dubbo 1993
434	B	M	1990 Hitachi	501	W	M	1992 Dubbo 1993
429	W	F	1990 Potgietersrus	494	W	F	1992 Dubbo
431	B	F	1990 Dvur Kralove	496	W	F	1992 Dubbo
430	B	M	1990 Zurich 1992 Chester	497	W	F	1992 Dubbo 1993
460	B	F	1990 Denver 1992	498	W	F	1992 Dubbo
428	B	F	1990 Berlin Zoo	499	W	F	1992 Dubbo
453	B	M	1990 Port Lympne 1993 Whipsnade	500	W	F	1992 Dubbo
472	B	M	1990 Miami 1993 Hitachi	502	W	F	1992 Dubbo
435	B	M	1990 San Diego WAP 1994 Lansing	474	B+	M	1992 San Diego WAP 1992
476	W	M	1991 Potgietersrus	455	B	F	1992 Dvur Kralove
436	B	F	1991 Berlin Zoo 1993 Leipzig	456	B	F	1992 Dvur Kralove
451	B	F	1991 Chester 1993 Whipsnade	463	B	M	1992 Milwaukee 1994 Dubbo
				482	B+	M	1993 Chester 1993
				475	B	M	1993 Miami
				489	B	F	1993 Tyler 1994 Lansing

Studbook No.	Status	Sex	History
492	B	F	1993 Hiroshima
486	B	F	1993 Linn
491	B	M	1993 Potgietersrus
485	B	M	1993 San Diego 1994 Dubbo
490	B	M	1993 Wichita
488	B	M	1993 Chicago Brookfield
480	B	M	1993 Colorado Springs
516	B	M	1993 Denver
493	B	F	1994 Hiroshima
484	B	F	1994 Frankfurt/M
538	B	F	1994 Osaka
539	B+	F	1994 Dvur Kralove 1994
540	B	F	1994 Dvur Kralove
532	B	F	1994 Berlin Zoo
521	B	M	1994 Linn
520	B	M	1994 Dallas
527	B		1994 Mysore
528	B	M	1994 Zurich
522	W	M	1994 Yulee
523	W	M	1994 Yulee
541	B	M	1994 Dvur Kralove
534	W	M	1994 Port Lympne
535	B+	M	1994 Chester 1994
518	B	M	1994 Cincinnati
519	B+	M	1994 Miami 1994
517	B	F	1994 Tampa

**Specimens of *Diceros bicornis* in captivity**

**Adelaide, South Australia**

*Adelaide Zoo*

*M* 1929 January – 1929 February 4 †

A young pair was obtained in East Africa by a member of the Council. Director R.E. Minchin purchased them in Melbourne in January 1929. The male died soon after arrival in Adelaide from enteritis (Rix 1978: 208).

*F* 1929 January – 1929 January †

Imported from East Africa together with the male (see previous entry). The female died while she was still in transit in Melbourne (Rookmaaker and Reynolds 1985: 140).

*M* 1947 November 25 – 1981 June 23

'Sinya' 097-ADL 1

Caught at Sinya, N. Tanzania [West of Mount Kilimanjaro] in January 1947 and presented to the zoo by Edward Hallstrom. It was first exhibited in Sydney from 10th July 1947 to 25th November 1947. Transported from Syd-

ney to Adelaide by air, at 11 pm, together with a cheetah, two spotted hyena and two giant tortoises (Rix 1978: 208). It was about 2.5 years old on arrival. To Sydney.

**Alma Ata, Kazakhstan**

*Zoopark*

*M* 1970 June 30 – 1989 January 15 †

'Cester' 103-CHE 3

From Chester. Died of asphyxia and dermatitis ulcerosus. The remains are kept at the Zoological Institute of the Academy of Sciences, Kazakhstan.

*F* 1970 June 30 – 1971 January 17 †

'Berta' 014-ARN 2

From Arnhem. Died of Stachybotryotoxicosis.

*F* 1972 October 14 – 1990 August 1

'Sheiba' 035-TOR 2

From Torino (via Ruhe, Gelsenkirchen). To Tallinn.

**Amsterdam, The Netherlands**

*Zoological Gardens 'Natura Artis Magistra' Artis Zoo*

*M* 1931 May 7 – 1934 May 13

'Karonggo'

Caught in December 1930 between Lake Manyara and Mount Meru in North Tanzania, when it was about one year old. It was temporarily deposited by the dealer Schulz. To Chicago Brookfield.

*F* 1931 August 14 (?)

'Pharoe'

From Quaa District, Zambesi, Southern Rhodesia [Zimbabwe]. Deposited by Hagenbeck. The zoo records just show a single date, which could be either the arrival or departure date. It probably was transferred elsewhere by the owner.

*M* 1937 May 15 – 1959 April 14 †

'Oldeani [Jani]'

Caught by Schulz in December 1936 on Mount Oldeani in Tanzania [near Ngorongoro Crater]. It was 1.5 years old on arrival. It died of an infection. Skull preserved at the Zoological Museum, Amsterdam (No. 2452).

*F* 1937 May 15 – 1945 April 1 †  
'Faroe'

Caught together with male in December 1936 on Mount Oldeani, Tanzania. On arrival, it was 2.5 years old. Skull preserved at the Zoological Museum, Amsterdam (No. 2451).

*F* 1948 June 5 – 1964 February 9 †  
'Suze'

Imported by Scherer. In 1957, it was seen eating an injured pigeon (*Artis Nieuws*, No. 128, 1957). Died of kidney disease.

*M* 1959 October 2 – 1960 October 27 †  
'Pongo'

Imported by Hagenbeck. It was caught in the area South of Arusha, Tanzania, and was about five years old on arrival.

*F* 1959 October 2 – 1967 April 13 †  
'Faroe' 012-AMS 2  
Captured in Tanzania, imported by Hagenbeck. It was six years on arrival. In 1967, it escaped from its cage and died from the effects of a tranquillizer.

*M* 1961 May 19 – 1963 April 13 †  
'Storm'

Imported by Schulz. Caught when 16 months old in the Kaokofeld in Namibia (photo in Zukowsky 1965, fig. 24). Skull preserved at the Zoological Museum, Amsterdam.

*M* 1963 August 21 – 1969 March 13 †  
'Jani' 011-AMS 1  
Captured in S.W. Africa (Namibia). The skull is preserved at the Zoological Museum, Amsterdam (No. 11.923).

*F* 1967 May 3 – 1978 July 7  
'Faru II' 205-AMS 3  
This animal was ten years old on arrival, but its origin is not recorded. It had no nipples. To Kuala Lumpur.

### Antwerp, Belgium

*Société Royale de Zoologie d'Anvers*  
*Jardin Zoologique*

John Edwards (London) has a postcard of Antwerp zoo dating from the beginning of the 20th century showing a black rhinoceros.

1858

Gijzen (1960) stated, without giving a source, that a black rhinoceros was in Antwerp in 1858. This would have been the first black rhinoceros in a European zoo. The record is doubtful, as this rhinoceros went completely unnoticed, unless perhaps the animal died within a few days.

*M* (?) – 1931 July †

There are no records concerning the stay of this specimen at the zoo. However, the remains were given by the zoo to the Museum of the Institut Royal du Sciences Naturelles de Belgique, Brussels, on 21st July 1931, where the stuffed hide and skeleton are still preserved today (No. 1202).

*F* 1949 September 22 – 1956 March 7 †  
'Cona'

This animal was imported by the dealer R. Henry of Brussels. The hide and skeleton are kept at the Museum of the Institut Royal du Sciences Naturelles de Belgique, Brussels (No. 9714). The museum records indicate that the animal came from Zaire when it was 13 months old.

*M* 1953 June 26 – 1964 February 21 †  
Captured in Kenya. It was ten months old on arrival.

*F* 1956 August 3 – 1969 November 5 †  
'Jessica' 015-ANT 1  
Captured in Kenya (dealer John Seago), when it was one year old.

### Arnhem, The Netherlands

*Burgers Zoo*

The registration of animals exhibited at this private zoo began in 1979. When I visited it in 1971, there were no black rhinos.

*M* 1951 May – 1958 October †

Captured near Arusha, Tanzania, imported by Peters, together with the following female. It died of colic.

*F* 1951 May – 1951 †

Captured near Arusha, Tanzania, imported by Peters.





1879.

Ausbruch einer nubischen Tierkarawane

17.

Fig. 105. Hagenbeck's Nubian Caravan in Berlin in 1879, depicted by H. Leutemann.

*M* 1959 May - (?)

Imported by Schulz, Okahandja, Namibia. It was alive in 1963 (Reynolds 1963: 103).

*F* 1961 June - 1961 †

Imported from Kenya (dealer Van den Brink).

*F* 1962 July 5 - (?)

From Rotterdam.

*M* 1966 January 9 - 1969 †

'Pinoccio'

013-ARN 1

*F* 1966 January 9 - 1970 June

'Berta'

014-ARN 2

To Alma Ata.

**Asheboro, NC, USA**

*North Carolina Zoological Park*

*M* 1974 April 17 - 1974 April 30 †

'Elly'

274-NCL 2

Probably from Kenya, together with the following female.

*F* 1974 April 17 - 1978 November 10

'Bertha'

273-NCL 1

Received from Mount Kenya region, Kenya. To Buffalo.

*M* 1974 October 24 - 1977 February 3 †

'Bruno'

275-NCL 3

Received from Kenya.

**Atlanta, GA, USA**

*Atlanta Zoo*

*M* 1967 December 18 - 1972 April 26 †

'Faru III'

050-PIT 3

From Pittsburgh, dealer Zeehandelaar (R.J. Reynolds, *International Zoo News*, 16 (1) 19, 1968).

*F* 1968 November 23 - 1988 July 6

'Rosie'

038-NAP 3

From Naples. To Miami.

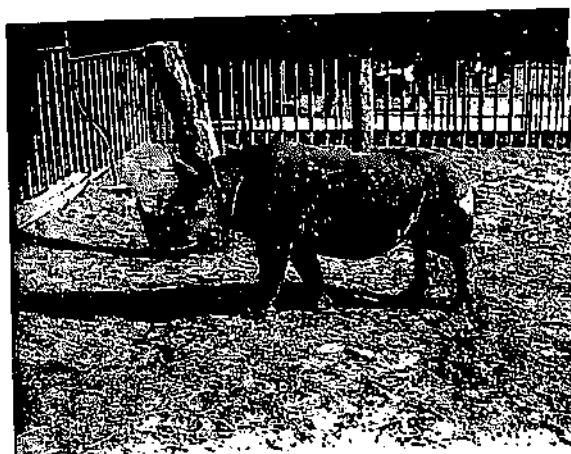


Fig. 106. Female black rhinoceros 'Fatuma' at Zoo Berlin, 1904.

*M* 1972 September 28 – 1987 April 23 †  
'Sam' 034-TOR 1  
From Torino. It was recorded twice in the studbook, also as 335-ATA 1, but the latter number was correctly withdrawn.

*M* 1989 October 18 –  
'Boma' 388-DVU 19  
From Dvur Kralove. A photograph was published in *The Atlanta Journal and Constitution* of 13th February 1990.

*F* 1990 November 23 –  
'Rosetta Stone' 426-SFO 1  
From San Francisco.

## Australia

### Ashton's Animal Kingdom, Queensland

This collection, recorded in the studbook, probably refers to Ashton's Circus, located in Brisbane.

*F* 1969 August 14 – 1975  
'Squeaker' 102-SYD 4  
From Sydney. To Melbourne.

## Bangkok, Thailand

### Dusit Zoo

*M* 1955 November 21 – 1985 April 28 †  
'Tui' 303-BAN 1  
The origin of this specimen is not known.

## Barcelona, Spain

### Parc Zoologic

Reynolds (1963) recorded the dates of the animals in Barcelona. No further information could be obtained. There is a photograph of black rhinos in Barcelona, possibly published posthumously, in the magazine *Zoo Revista*, No. 19, March 1974, p. 27.

*M* 1959 July 14 – died before 1963 †  
Imported by Ruhe.

*M* 1960 July 20 – died before 1963 †  
Imported by Ruhe.

*M* 1963 May – 1970 June  
'Ringo' 107-BON 1  
To Berlin Tierpark (via the dealer Van den Brink of Soest, The Netherlands, where present on 11th June 1970).

*F* 1963 May – 1964 †  
'Aphrodite' 108-BON 2

## Basel, Switzerland

### Zoologischer Garten

*M* 1935 May – 1935 July †  
'Stamper'  
From Hannover, as a temporary exhibit for the summer months. It may have died on the return journey (Reynolds 1963: 110).

*M* 1954 November 25 – 1955 March 1  
On temporary loan from Circus Knie, Rapperswil, Switzerland and was returned there.

## Beijing, China

### Zoological Gardens

*M* 1957 July 17 – 1971 October 17 †  
'Afei' 276-PKG 4  
Imported by Heini Demmer from Kenya.

*F* 1957 July 17 –  
'Feia' 263-PKG 1  
Imported by Heini Demmer from Kenya.

**F** 1965 January 26 – 1990 †  
 'November 2' 264-PKG 2  
 Born to Afei (276) and Feia (263). Illustration  
 in Jarvis (1966: 414).

**F** 1970 September 4 –  
 'November 3' 265-PKG 3  
 Born to Afei (276) and Feia (263).

**M** 1979 July 24 –  
 'Jiji' 291-PKG 5  
 From Kobe.

# Bekesbourne, UK

## Howletts Zoo Park

**M** 1971 April 3 – 1980  
 'Ringo' 142-DUB 3  
 From Dublin. To Port Lympne.

**F** 1971 July 26 – 1980  
 'Naivasha' 194-BEK 1  
 Caught in Kenya. To Port Lympne.

**F** 1971 October 20 – 1980  
 'Rukwa' 195-BEK 2  
 Caught in Kenya. To Port Lympne.

**M** 1977 November 8 – 1980  
 'Basha' 245-BEK 3  
 Born to Ringo (142) and Naivasha (194). To  
 Port Lympne.

# Berlin, Germany

## 1. Zoologischer Garten

Klös *et al.* (1994: 216-221) presented some of  
 the recent history of keeping rhinos in Berlin.  
 The rhinoceros accommodation at the zoo was  
 described by Klös and Klös (1990).

**F** 1870 July 6 – 1884/1887 †  
 'Molly'  
 Hagenbeck received this animal on 10th June  
 1870 at Suez from the dealer Migoletti. It had  
 been caught in the region of the source of the  
 Blue Nile in Ethiopia (Zukowsky 1965: 138),  
 between Homran and Ondarof (Noll 1873: 141).  
 Berlin Zoo bought it in July 1870 for 6000  
 Thaler. The date of arrival is variously given  
 as 6th July (Lichtenberg in Schlawe 1969: 28)  
 or 15th July (Noll 1873: 141). Sclater (1876a:

658) published a drawing of the animal's head.  
 Heck (1899) showed a photograph, reproduced  
 by Zukowsky (1965: 138, fig. 68). Klös *et al.*  
 (1994: 82) illustrated a drawing by Wilhelm  
 Kuhnert in 1870. The date of death is not  
 recorded. Zukowsky (1965: 138) said that it  
 died in 1884, while Schlawe (1969: 28) men-  
 tioned either 1884 or 1887. The cause may  
 have been blood poisoning (Reynolds 1963: 106).  
 See Fig. 103.

## 1878

In the autumn of 1878, four young black rhi-  
 nos were exhibited in Berlin as part of Hagen-  
 beck's Nubian Caravan.

**F** 1904 January 29 – 1908 March †  
 'Fatuma'

Caught in 1903 by C.G. Schillings on the west  
 side of Mount Kilimanjaro, N. Tanzania (Knot-  
 tnerus-Meyer 1905: 109, Zukowsky 1965: 106).  
 It was drawn by Wilhelm Kuhnert (Klös 1969:  
 65). After its death, on 27th April 1908, Vir-  
 chow (1910) studied its anatomy. See Fig. 106.

**F** 1907 May 24 – 1917 March 22 †

This specimen was a gift from Negus Menelik  
 II of Ethiopia to Emperor Wilhelm II of Ger-  
 many. It was about 18 months old on arrival.  
 It originated from the Chomen swamp, south  
 west of Imbabo, in Western Ethiopia (Zu-  
 kowsky 1965: 130, figs. 63, 64).

**M** 1909 November 29 – 1910 June 18 †  
 From St Petersburg. Died of colic.

**M** 1928 May 20 – 1943 December 23 †  
 'Mtoto'

Caught during Lutz Heck's second expedition  
 to Tanzania in 1927/1928. Heck (1930: 71-86)  
 described the capture of this young rhinocero-  
 s. He had a camp near Mbulu or Umbulu,  
 between Lake Manyara and Lake Eyazi in  
 North Tanzania (ca. 3°40'S, 35°10'E). A young  
 male black rhinoceros was caught on 3rd Jan-  
 uary 1928, when it was about six months old,  
 80 cm high, with horns of 12 and 8 cm. A  
 young female rhinoceros caught in the same  
 area died after three days. Early photographs  
 of the male were included in Heck's book  
 (1930: 105, 112, 112, 120), and others are found  
 in Klös (1969: 94) and Klös *et al.* (1994: 111).  
 A postcard of the animal and a toy modelled  
 after it are illustrated in *Bongo*, Berlin, 16  
 (1990): 98, 99. The animal died during a bomb  
 attack on the night of 22nd November 1943

(Blaszkiewicz 1991a) or 23rd December 1943 (Zukowsky 1965: 106).

*F* 1940 - 1940 November 15  
On loan in the autumn of 1940 (*Zoologische Garten*, 12, 1940, p. 342). It was returned to the unknown owner (Reynolds 1963: 106).

*F* 1940 December 4 - 1941 †  
Recorded in Reynolds (1963: 106). Its death in 1941 was noted in *Zoologische Garten*, 14 (1942), p. 283.

*F* 1954 August 5 - 1976 October 28  
'Arusha' 002-BE 2  
Imported by Fockelmann from the Mount Meru area, Tanzania (Zukowsky 1965: 109). Photographs were published by Klös (1969: 204) and Klös and Frese (1981a: 40). To Jos.

*M* 1957 July 2 - 1975 February 4 †  
'Meru' 001-BE 1  
Captured on Mount Meru, Tanzania, imported by Hagenbeck (Zukowsky 1965: 109). Photographs were published by Klös (1969: 204) and Klös and Frese (1981a: 41).

*M* 1975 May 5 - 1976 October 28  
'Embu' 222-BE 6  
Captured in Kenya. To Jos.

*F* 1975 May 5 - 1983 February 4 †  
'Kitani' 221-BE 5  
Imported by Heini Demmer and Langato from the Tana River District, Kenya (Frese 1983: 38). It was three years on arrival. Klös and Frese (1981a: 44) included a photograph. Jarofke (1983) analyzed the milk after the birth of Theluji in 1981.

*M* 1975 October 19 - 1988 January 15 †  
'Mbololo' 219-BE 3  
Captured in the Tana River District, Kenya, imported by Heini Demmer (Frese 1983: 38). Photographs were published by Klös and Frese (1981a: 42) and Blaszkiewicz (1991a, fig. 3).

*F* 1975 October 19 -  
'Kilaguni' 220-BE 4  
Captured in the Tana River District, Kenya, imported by Heini Demmer (Frese 1983: 38). A photograph was published by Klös and Frese (1981a: 45). It had a small third horn on the shoulders, about 5-6 cm long (Blaszkiewicz 1986).

*F* 1977 May 6 -  
'Mzima' 240-BE 7  
From Verona.

*F* 1981 December 23 - 1992 May 26 †  
'Theluji' 298-BE 8  
Born to Mbololo (219) and Kitani (221). Gestation period 483 days. Photographs can be found in Klös and Frese (1983: 204, 1987: 160). Francke and Schwarzenberger (1991) studied the possibility of monitoring the pregnancy through hormone levels in the faeces.

*F* 1982 May 5 - 1984 March 1 †  
'Mbili' 310-BE 9  
Born to Mbololo (219) and Mzima (240). Frese (1983) gave details of the birth. A photograph can be found in Klös and Frese (1983: 204).

*M* 1984 August 10 - 1995 October 11 †  
'Tatu' 347-BE 10  
Born to Mbololo (219) and Mzima (240). Photograph in Klös and Frese (1987: 160).

*F* 1986 October 6 -  
'Tne' 366-BE 11  
Born to Mbololo (219) and Kilaguni (220). Photograph in Klös and Frese (1987: 161).

*F* 1987 February 25 - 1988 December 23 †  
'Tano' 375-BE 12  
Born to Mbololo (219) and Mzima (240). Photograph in Klös and Frese (1987: 161).

*M* 1988 April 5 - 1991 October 1 †  
'Klaus' 166-LEJ 1  
From Leipzig.

*M* 1988 July 19 - 1992 December 9  
'Cody' 260-SYD 8  
From Sydney. To Dvur Kralove.

*M* 1988 December 20 - 1988 December 20 †  
385-BE 13  
Stillborn to Klaus (166) and Mzima (240).

*F* 1990 October 12 -  
'Sita' 428-BE 14  
Born to Klaus (166) and Theluji (298). Photographs can be seen in Francke and Schwarzenberger (1991: 45) and Klös and Frese (1993: 121).

*F* 1991 February 7 - 1993 September 23  
'Saba' 436-BE 15  
Born to Klaus (166) and Kilaguni (220). Photo-

graphs can be found in Francke and Schwarzenberger (1991: 45) and Klös and Frese (1993: 121). To Leipzig.

*F* 1991 April 4 – 1994 May 26  
'Nane' 437-BE 16  
Born to Klaus (166) and Mzima (240). Photographs can be seen in Francke and Schwarzenberger (1991: 45), Klös and Frese (1993: 122) and Klös *et al.* (1994: 221). To Krefeld.

*M* 1994 April 27 –  
'Kobo' 009-HAJ 3  
From Magdeburg.

*F* 1994 May 20 –  
'Tisa' 532-BE 17  
Born to Tatu (347) and Kilaguni (220). There is a photograph in Bongo, Berlin, 25 (1995), p.74.

## 2. Tierpark

The black rhinos in this zoo are discussed by Blaszkiewicz (1994b).

*F* 1956 October 17 – 1970 May 11 †  
'Faru' 004-TI 2  
Imported by Ruhe from Mount Meru, Tanzania. It was five years old on arrival. Zukowsky (1965, fig. 56) and Blaszkiewicz (1994b, figs. 2, 3) published photographs. It died of lung mycosis.

*M* 1956 December 10 – 1959 October 3 †  
'Thomas'  
Imported by Heini Demmer via Mombasa, Kenya (Zukowsky 1965: 109). It was nine months old on arrival. Blaszkiewicz (1994b, figs. 1,2) published a photograph of the animal with keeper Monbaron taken in 1957. It died of blood poisoning.

*M* 1960 July 22 – 1960 August 26 †  
Imported by Ruhe from East Africa (probably Tanzania). There is a photograph in Blaszkiewicz (1994b, fig. 4).

*M* 1961 September 6 – 1969 November 6 †  
'Pepe' 003-TI 1  
Imported by Ruhe from East Africa. It was nine months old on arrival. There is a photograph in Blaszkiewicz (1994b, fig. 3). It died of lung mycosis.

*F* 1967 November 10 – 1983 November 17 †  
'Lady' 111-TI 3  
Imported by Ruhe from East Africa. Klös and Frese (1983: 201) and Blaszkiewicz (1994b, figs. 6,7) published photographs. It was sold to Havana (through Van den Brink, Soest), but never arrived there. It probably died in transit on 30th November 1983.

*M* 1970 June 24 – 1970 October 19 †  
'Lord' 107-BON 1  
From Barcelona. Studbook No. 154-TI 4 refers to the same animal, and was correctly withdrawn. Blaszkiewicz (1994b, fig. 5) published a photograph.

## Borås, Sweden

### Collection of Sigvard Berggren

Sigvard Berggren was the first director of Borås Djurpark.

*M* 1961 September – 1961 December †  
'Kifaru'  
Probably came from Kenya. Died of blood poisoning (Reynolds 1963: 103).

## Boston, MA, USA

### Franklin Park Zoo

*M* 1973 July 9 – 1976 November 9  
'Peter' 254-BOS 1  
Imported from Kenya. To Buffalo.

*F* 1973 July 9 – 1976 November 9  
'Baby' 255-BOS 2  
Imported from Kenya. To Buffalo.

*F* 1973 July 9 – 1976 November 9  
'Sally' 256-BOS 3  
Captured in Kenya. Klös and Frese (1993) record that it was first kept at Okahandja, Namibia (dealer Schulz) from 1970. To Buffalo.

## Bristol, UK

### Bristol, Clifton & West of England Zoological Society

Greed (1967) gave details of three births in Bristol up to 1967.

*M* 1952 October 18 – 1972 April 7 †  
 'Willie' 020-BRI 1  
 Captured in East Africa, imported by John Seago. It was 1.5 years old on arrival.

*F* 1952 October 18 – 1971 June 25 †  
 'Stephanie' 021-BRI 2  
 Captured in East Africa, imported by John Seago. It was 1.5 years old on arrival. The milk was analyzed by Aschaffenburg *et al.* (1961) and Gregory *et al.* (1965).

*M* 1958 August 22 – 1960 March 7  
 'Roger' 024-CHE 1  
 Born to Willie (20) and Stephanie (21). Gestation period 438 days. Klös and Frädrich (1970, fig. 5) published a photograph. This was the first black rhinoceros birth in the British Isles. To Chester.

*M* 1961 December 28 – 1963 April 30  
 'Ronald' 028-DUB 1  
 Born to Willie (20) and Stephanie (21). To Dublin.

*F* 1964 August 24 – 1971 October 28 †  
 'Rhona' 023-HOL 2  
 Born to Willie (20) and Stephanie (21). Gestation period 438 days. Died due to rectal prolapse (Pearson *et al.* 1967).

*M* 1966 June 27 – 1978 March 22  
 'Rupert' 022-HOL 1  
 From Hannover. To London.

*F* 1968 June 16 – 1969 February 19 †  
 'Rowena' 127-BRI 3  
 Born to Willie (20) and Stephanie (21). The animal suffered a rectal prolapse on 25th January 1969. It was operated on, but this was not completely successful. A final prolapse on 2nd February 1969 was more severe. It was euthanized.

*F* 1970 May 17 – 1971 February 12 †  
 'Rebecca' 140-BRI 4  
 Born to Willie (20) and Stephanie (21). Birth weight 42 lbs.

*F* 1973 March 21 – 1981 October 29  
 'Thelma' 147-SOU 1  
 From Southampton. It was exhibited in Chester from 18th March 1977 to 4th October 1978. After three years in Bristol, it was again transferred to Chester in 1981.

## Budapest, Hungary

### Zoological Gardens

*M* 1929 May – 1941 April 18 †  
 Imported by Ruhe. Zukowsky (1965: 144) presumed that this was one of four specimens imported by Ruhe, which were caught by Karl Kreth in the country around Niellim and Korbol, North of Fort Archambault (Sarh) in South Chad, belonging to *Diceros bicornis longipes*. It died of cancer of the jaw.

*F* 1969 June 27 – 1983 May 21  
 'Stella' 104-HAJ 4  
 From Hannover. To San Diego Wild Animal Park.

## Buenos Aires, Argentina

### Jardim Zoologico

Reynolds (1963: 104) reported a birth in 1959. However, this does not appear to be correct (Rookmaaker and Reynolds 1985: 140).

*M* 1938 January – 1952 July 9 †

*F* 1948 December 20 – 1970 December 21 †  
 'Chiquita' [Marta] 117-BUE 1

*M* 1953 September – 1964 †  
 555-BUE 5  
 May have been imported by Ruhe (Reynolds 1963: 107).

*M* 1956 April or December – 1956 †  
 Born to male (555) and Chiquita (117). The baby lived only a few days. The month of birth was either April (Crandall 1964: 512) or December (Reynolds 1963: 104).

*M* 1958 January 3 – 1973 December 8 †  
 'Archibaldo III' 118-BUE 2  
 Born to male (555) and Chiquita (117).

*F* 1962 March 22 – 1973 November 2 †  
 'Martita' 119-BUE 3  
 Born to male (555) and Chiquita (117).

*F* 1973 April 23 – 1993 April 20 †  
 'Chiche' 231-BUE 4  
 Born to Archibaldo (118) and Martita (119).



*M* 1979 November 27 – 1980 February 20 †  
'Amani' 272-MIA 3  
From Miami.

## Buffalo, NY, USA

### Buffalo Zoological Gardens

*M* 1976 November 9 – 1983 January 18 †  
'Peter' 254-BOS 1  
From Boston.

*F* 1976 November 9 – 1983 January 21  
'Baby' 255-BOS 2  
From Boston. To Miami.

*F* 1976 November 9 – 1978 April 5 †  
'Sally' 256-BOS 3  
From Boston.

*M* 1977 December 9 – 1979 November 26  
257-BUF 1  
Born to Peter (254) and Baby (255). To Tulsa.

*F* 1978 November 10 – 1980 Sept. 20 †  
'Bertha' 273-NCL 1  
From Asheboro.

*M* 1982 May 3 – 1982 May 3 †  
348-BOS 4  
Stillborn to Peter (254) and Baby (255).

## Cairo, Egypt

### Giza Zoological Gardens

The following dates of arrival and departure or death are taken from Reynolds (1963: 110). In the collection of John Edwards, London, there are three postcards from this zoo, one showing a very young rhinoceros, another a rhinoceros with a goat, with the statement that the rhinoceros came from 'Kit River' in S.E. Sudan. Ezzat (1945: 12, 75-104) described helminth parasites from the rhinos in Giza.

*F* 1910 May 29 – 1918 January 31 †  
Gift of Prince Yusef Kamal Pusha. Knauer (1914: 104) published a photograph taken in 1911.

*M* 1931 December 18 – 1942 March 7 †

*F* 1932 May 15 – 1941 August 17 †

*F* 1932 May 15 – 1943 January 7 †

*M* 1951 March 3 – 1952 December 29 †

*F* 1951 March 3 – 1960 January 14 †

*M* 1960 December 20 –  
080-CAI 1  
Captured in East Africa.

*F* 1960 December 20 – 1970 January 21 †  
081-CAI 2  
Captured in East Africa.

## Chemnitz, Germany

### Zoologischer Garten

The zoo, in the present Karl-Marx Stadt, was a branch of Leipzig Zoo, Germany.

*F* 1929 April – 1930  
From Leipzig. After one year, it was sent to the dealer Christoph Schulz; final destination unknown. Schneider (1930: 23, figs. 4,5) gave measurements and published two photographs taken in May 1929 and 16th June 1929.

## Chengdu, Sichuan, China

### Zoological Gardens

*M* 1982 August 16 – 1982 December 31 †  
'Botti' 288-NGO 7  
From Nagoya.

*F* 1982 August 16 – 1982 August 20 †  
'Mack' 287-NGO 6  
From Nagoya.

## Chester, UK

### North of England Zoological Society

*F* 1953 – 1953 †  
This young animal died soon after arrival (Reynolds 1963: 107) on an unspecified date. The zoo has no further information about it.

*F* 1959 October 3 – 1975 May 19 †  
'Susie' 025-CHE 2  
Imported by John Seago, probably from Kenya. See Fig. 107.

*M* 1960 March 7 – 1980 June 3 †  
 'Roger' 024-CHE 1  
 From Bristol.

*M* 1967 September 10 – 1970 June 30  
 'Reginald' 103-CHE 3  
 Born to Roger (24) and Susie (25). To Alma Ata.

*M* 1971 February 22 – 1987 November 15  
 'Jaspa' 164-CHE 4  
 Born to Roger (24) and Susie (25). It was exhibited in Paignton while on breeding loan from 27th March 1973 to 30th June 1981 (see Fig. 107). To London.

*F* 1973 November 30 – 1976 March 18 †  
 'Linda' 200-CHE 5  
 Born to Roger (24) and Susie (25).

*F* 1977 March 18 – 1983 October 2 †  
 'Thelma' 147-SOU 1  
 From Bristol. It was again exhibited in Bristol from 4th October 1978 to 29th October 1981.

*F* 1977 July 15 – 1978 May 19 †  
 'Noelle' 210-LON 5  
 From London.

*M* 1984 May 2 – 1994 October 14  
 'Parky' 318-WHI 6  
 From Whipsnade. To Port Lympne.

*F* 1984 May 9 –  
 'Esther' 312-LON 7  
 From London.

*F* 1991 February 27 – 1993 October 28  
 'Emma' 451-CHE 6



Fig. 107. Chester: female 'Susie' with, behind her, baby 'Jaspa', July 1971.

Born to Parky (318) and Esther (312). A photograph can be seen in Anonymous (1992: 15). To Whipsnade.

*M* 1992 November 13 –  
 'Quinto' 430-ZRH 9  
 From Zurich.

*F* 1992 November 13 –  
 'Pangani' 422-ZRH 8  
 From Zurich.

*M* 1993 January 20 – 1993 January 20 †  
 482-CHE 7  
 Stillborn to Parky (318) and Esther (312).

*M* 1994 November 21 – 1994 Nov. 21 †  
 535-CHE 8  
 Stillborn to Parky (318) and Esther (312).

## Chicago, IL, USA

### 1. Chicago Zoological Park, Brookfield

*F* 1933 October 28 – 1933 November 9 †  
 From the private zoo of George F. Getz in Holland, USA, as a donation from the owner.

*M* 1934 June 13 – 1943 July 8  
 'Karongo'  
 From Amsterdam (through Schulz). To Milwaukee.

*M* 1935 June 26 – 1967 August 16 †  
 'Pharaoh' 060-CHI 1  
 Caught on Mount Essiminger [?], Tanzania by C. Schulz. On arrival, it was 18 months old. The date of arrival was discussed by Rookmaaker and Reynolds (1985: 141). It was first kept in Boston's Franklin Park from 21st to 25th June 1935 (Marvin Jones, in litt.).

*F* 1935 June 26 – 1980 March 18 †  
 'Mary' 061-CHI 2  
 Caught in the same place as Pharaoh (previous entry). It was two years old on arrival. This animal holds the current captive longevity record of the black rhinoceros with a life span in the zoo of 44 years and nine months.

*M* 1941 October 7 – 1943 November 5  
 556-CHI 13  
 Born to Pharaoh (60) and Mary (61). Bean (1941) described the birth, and stated that the

gestation was 19 months and seven days. To Pittsburgh.

*M* 1944 September 2 or 21 – 1945 June  
'Robert' or 'Bobby' 531-CHI 11  
Born to Pharaoh (60) and Mary (61). The animal was named after Robert Ringling (Reynolds 1982). Date of birth is not clear; 21st September is given by Reynolds (1963). To Ringling Brothers and shown at the Ringling Bros., Barnum & Bailey circus.

*F* 1956 May 19 – 1963 April 26  
'Rosie' 063-MKC 2  
Imported from East Africa when it was about 11 weeks old. To Kansas City.

*F* 1973 November 23 – 1986 November 10  
'Judy' 233-CHI 3  
Captured in Kenya. To San Diego Wild Animal Park.

*M* 1973 December 11 – 1978 May 16 †  
'Courtney' 234-CHI 4  
Imported from Kenya.

*F* 1973 December 11 –  
'Brooke' 235-CHI 5  
Captured in Kenya.

*M* 1980 August 5 – 1993 May 19 †  
'Embu' 271-ZRH 6  
From Zurich.

*F* 1982 July 21 –  
'Marsha' 294-STA 3  
From San Antonio.

*F* 1985 January 18 –  
'Shima' 365-CHI 6  
Born to Embu (271) and Brooke (235). Birth weight was 60 lbs. A photograph was published in *Brookfield Zoo Bison*, Spring 1985, p. 3.

*M* 1986 December 11 – 1988 October 22  
'Corky' 372-CHI 7  
Born to Embu (271) and Brooke (235). To Tyler.

*M* 1987 March 23 –  
'Kabisa' 363-CVG 14  
From Cincinnati.

*F* 1988 November 4 – 1990 March 15  
'Miadi' 396-CHI 8  
Born to Embu (271) and Brooke (235). A photo-

graph can be seen in *International Zoo News*, 36 (5): 32, 1989. To Portland.

*F* 1991 March 7 – 1992 May 22  
'Akili' 444-CHI 9  
Born to Embu (271) and Brooke (235). The baby stood within 35 minutes and took its first steps after 69 minutes. A photograph can be found in Lappa (1991). To Tampa.

*M* 1993 October 6 –  
'Kijito' 488-CHI 10  
Born to Embu (271) and Brooke (235).

*M* 1994 May 17 –  
'Nakili' 427-SDW 4  
From San Diego WAP.

## 2. Lincoln Park Zoological Gardens

*M* 1982 June 17 –  
'Johnstone' 308-SFO 7  
From San Francisco.

*F* 1984 June 12 –  
'Naivasha' 317-CVG 12  
From Cincinnati.

*M* 1989 May 21 – 1990 August 1  
'Barley' 419-CHI 1  
Born to Johnstone (308) and Naivasha (317). Photograph in Leifer (1989). To Garden City.

## Cincinnati, OH, USA

### Cincinnati Zoo

Reynolds (1963: 111) listed a pair received on 12th November 1958, but does not mention those arriving in April 1957. Both records refer to one pair only. There is a photograph of a mother and calf (no identification) in Ehrlinger (1993: 106). See Fig. 108.

*M* 1935 July 26 – 1956 September 12 †  
'Bomba'  
The origin of this animal is not known. It was probably quite young on arrival as, in September 1935, a newspaper recorded excitement due to the growth of the second horn. Its skull was given to Dr. George Hubbell, Miami on 17th October 1958.

*M* 1957 April 14 – 1989 April 20

'Johnny' 056-CVG 1

This animal was first in Hamburg (probably with the dealer Hagenbeck) and was imported via the Miami Rare Bird Farm. To Oklahoma.

*F* 1957 April 14 – 1971 March 1 †

'Opal' 057-CVG 2

The origin is not known. The zoo has no further records.

1960 March/April – 1960 March/April †  
Stillborn to Johnny (56) and Opal (57).

*F* 1961 July 27 – 1963 June 28

'Lotto' 055-OKC 2

Born to Johnny (56) and Opal (57), see R.J. Reynolds (*International Zoo News*, 8 (4): 117, 1961). To Oklahoma. See Fig. 109.

*M* 1964 September 30 – 1970 December 6 †

'Brook' 058-CVG 3

Born to Johnny (56) and Opal (57).

*M* 1967 September 20 – 1968 November 6

059-CVG 4

Born to Johnny (56) and Opal (57). It is not known where this animal was sent (Klős and Frese 1991), but it apparently died (information from Cincinnati zoo).

*F* 1970 March 21 – 1993 July 27 †

'Princess' 180-CVG 5

Born to Johnny (56) and Opal (57). Exhibited in Columbus from 10th April 1989 to 10th January 1990.

*M* 1972 July 19 –

'Ralph' 247-CVG 7

Imported from Kenya. According to Klős and Frese (1987), the animal was transferred to Osaka on 14th December 1976, but this was deleted in later editions.

*F* 1973 June 7 – 1989 June 28 †

'Baruti' 207-CVG 6

Captured in Kenya.

*F* 1976 September 16 – 1978 December 18

'Sweet Pea' 267-CVG 8

Born to Johnny (56) and Baruti (207). To Columbus.



# THE CINCINNATI ZOO AND BOTANICAL GARDEN

Fig. 108. Vignette of Cincinnati Zoo and International Rhino Foundation.

*M* 1977 November 3 – 1978 November 13

'Bubba' 268-CVG 9

Born to Ralph (247) and Princess (180). To Dvur Kralove.

*M* 1980 February 25 – 1981 June 23

'Eugene' 301-CVG 10

Born to Johnny (56) and Baruti (207). To Wichita.

*M* 1980 August 7 – 1981 September 28

'Mwaniki' 302-CVG 11

Born to Ralph (247) and Princess (180). To San Diego Wild Animal Park.

*F* 1982 September 29 – 1984 June 12

'Naivasha' 317-CVG 12

Born to Johnny (56) and Baruti (207). To Chicago Lincoln Park.

*M* 1983 January 11 – 1984 July 10

'Akeem' 332-CVG 13

Born to Ralph (247) and Princess (180). To Denver.

*M* 1985 December 14 – 1987 March 23

'Kabisa' 363-CVG 14

Born to Ralph (247) and Princess (180). To Chicago Brookfield.

*F* 1985 December 27 – 1987 July 17

'Sababu' 364-CVG 15

Born to Johnny (56) and Baruti (207). To San Antonio.

*F* 1988 October 19 – 1989 April 10

'Kulinda' 397-CVG 16

Born to Ralph (247) and Princess (180). To Columbus.

*F* 1990 August 16 –

'Julie' 225-TAM 2

From Tampa.



Fig. 109. Four-day-old calf 'Lotto' born in July 1961 in Cincinnati.

*M* 1992 August 5 – 1994 August 19  
'Adimu' 457-CVG 17  
Born to Ralph (247) and Julie (225). To Cleveland.

*M* 1994 December 9 –  
'Bwana Chai' 518-CVG 18  
Born to Ralph (247) and Julie (225).

#### **Cleethorpes, UK**

##### *Marineland and Zoo*

*M* 1968 – 1973 September 5  
'Johnny' 215-DUB 4  
Imported from Kenya. The animal may earlier have been kept at the Nairobi Animal Orphanage, Kenya from 1965. To Dublin.

#### **Cleveland, OH, USA**

##### *Cleveland Metroparks Zoological Park*

*M* 1955 October 22 – 1975 December 27 †  
'Jr. Largo' 051-CLE 1

Imported through Willy De Beer from Tanzania.

*F* 1955 October 22 – 1962 February 17 †  
Imported with the above male from Tanzania. Died of malignancy of the bladder and kidneys.

*M* 1976 July 19 – 1977 July 7 †  
'Zulu' 208-OKC 5  
From Oklahoma.

*M* 1994 August 19 –  
'Adimu' 457-CVG 17  
From Cincinnati.

#### **Cologne, Germany**

##### *Zoologischer Garten Köln*

There is a colour postcard of a full-grown black rhinoceros in Cologne dating from the beginning of the 20th century, in the collection of John Edwards, London.

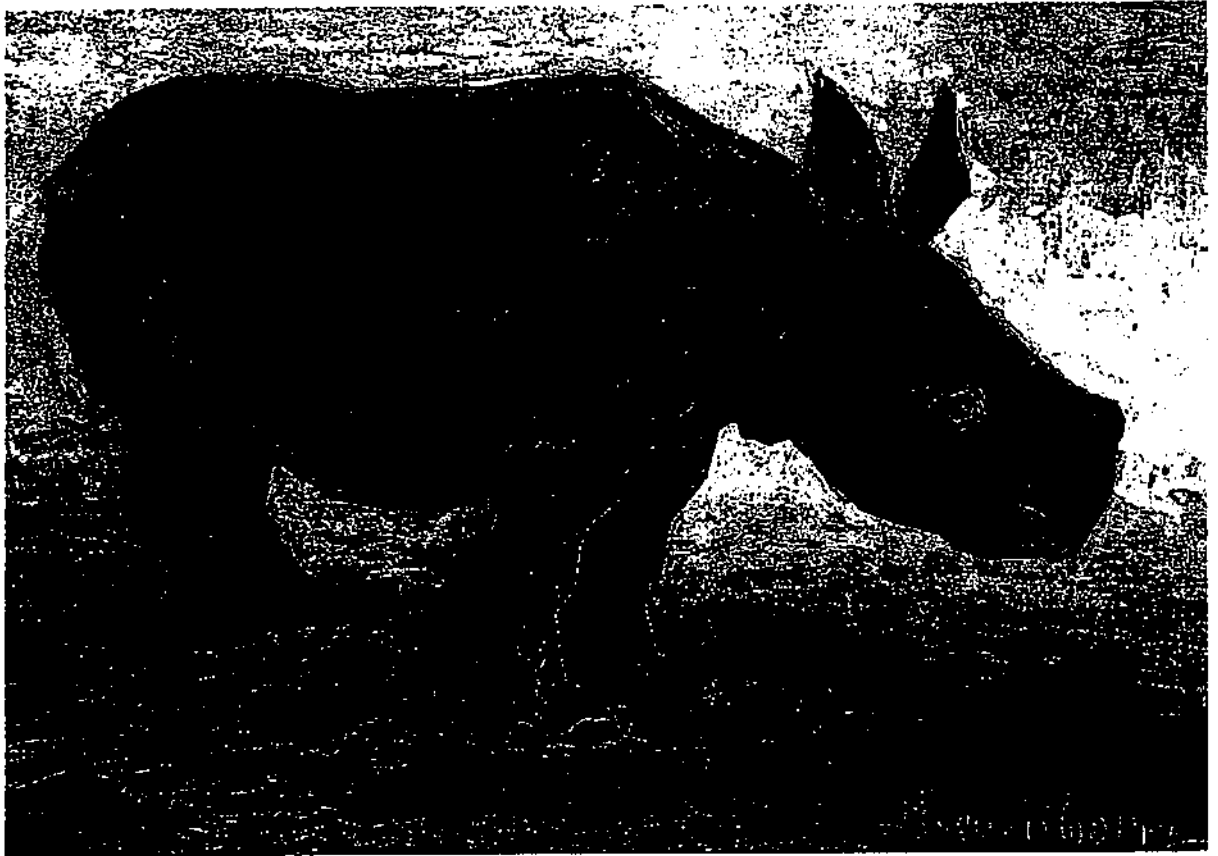


Fig. 110. Cologne's female black rhino exhibited from 1908-1914, drawn by Paul Neuenborn.

*F 1908 February 26 – 1914 (?) †*

Captured in British East Africa [Kenya]. It was five months old on arrival. Kohle (1981: 104) published a photograph by Eduard Hölzermann (undated, see Fig. 111). There are six sketches of this animal by Paul Neuenborn in the Zoo archives (Kohle 1981: 103, 105; see Fig. 110). A double-horned rhinoceros was seen in the Elephant House by Knauer (1914: 195), probably this female. The date of death is not recorded.

*M 1953 May 31 – 1957 September 26 †*

The date of arrival was recorded by Marvin Jones, the date of death in the zoo records. It died of tuberculosis.

**Colombo, Sri Lanka**

*National Zoological Gardens, Dehiwala*

According to the 'Census of Rare Animals' in the *International Zoo Yearbook*, Vol. 32 (1993), the zoo would exhibit 0/1 at that time.

*F 1955 March 25 – 1962/63 †*

*'Patsy'*

Imported from Kenya (dealer H.R. Stanton). Died during childbirth in 1962 or 1963.

*M 1960 December 17 –*

*'Hatari'*

*132-CEY 1*

Captured in East Africa. It was two years old on arrival.

*M 1962 or 1963 – died same day †*

Born to Hatari (132) and Patsy. The baby did not survive.



Fig. 111. Black rhinoceros in Cologne from 1908-1914, photographed by Eduard Hölzermann.



*F* 1966 –  
'Judy' 133-CEY 2  
Captured in East Africa. It was two years old  
on arrival.

*F* 1968 October 4 –  
'Momela' 134-CEY 3  
Born to Hatari (132) and Judy (133). Gestation  
period 427 days. The date of birth was record-  
ed as 11th August 1968 in Klös and Frese (1991).  
A photograph was published by C.R. Schmidt  
(*Freunde des Kölner Zoo*, 12 (4): 121, 1970).

*M* 1978 August 17 –  
'Livesey' 250-SFO 6  
From San Francisco.

### Colorado Springs, CO, USA

#### *Cheyenne Mountain Zoological Park*

*M* 1956 May 21 – 1956 August 15 †  
Imported through Ruhe. Of unknown origin.

*F* 1956 May 21 – 1957 May 21  
Imported through Ruhe and returned to him  
after one year. The final destination was not  
recorded.

*M* 1957 May 21 – 1982 November 5 †  
'Pokey' 071-CHN 1  
Imported by Ruhe.

*F* 1957 May 21 – 1963 October 13 †  
Imported by Ruhe.

*F* 1967 June 26 – 1983 January 13 †  
072-CHN 2

*F* 1970 November 6 – 1972 November 10 †  
290-CHN 4  
Born to 71 and 72.

*F* 1972 May 3 – 1986 December 13 †  
'Maybelle' 187-CHN 3  
Born to 71 and 72.

*M* 1983 November 10 – 1994 Sept. 29 †  
'Watson' 305-HIR 5  
From Hiroshima.

*F* 1987 January 14 –  
'Shy-Anne' 331-STA 5  
From Kansas City.

*M* 1993 October 20 –  
'Boo' 480-CHN 5  
Born to Watson (305) and Shy-Anne (331).

### Columbia, SC, USA

#### *Riverbanks Zoological Park & Botanical Gar- den*

*M* 1991 May 23 –  
'Zakar' 381-LAX 10  
From Milwaukee.

*F* 1991 June 6 –  
'Gemstone' 383-SFO 9  
From Milwaukee.

### Columbus, OH, USA

#### *Columbus Zoo*

*F* 1941 – 1963 February 2 †  
'Leitha'  
Dates recorded by Reynolds (1963: 111). The  
zoo has no record of this specimen.

*M* 1954 –  
'Clyde' 068-CMH 1  
Reynolds (1963: 111) recorded the arrival of a  
male in 1953, but not this one of 1954; there  
was probably only one specimen.

*F* 1970 November 6 – 1971 September 10 †  
152-LAX 3  
From Los Angeles.

*F* 1978 May 14 – 1982 April 17 †  
'Bonnie' 176-DVU 8  
From Jacksonville.

*F* 1978 December 18 – 1979 October 27  
'Sweet Pea' 267-CVG 8  
From Cincinnati. To Los Angeles.

*F* 1984 October 6 – 1986 October 23  
'Kenya' 311-HAI 1  
From Haines City and later returned there.

*F* 1989 April 10 – 1990 January 9  
'Princess' 180-CVG 5  
From Cincinnati and later returned there.

*F* 1989 April 10 –  
'Kulinda' 397-CVG 16  
From Cincinnati.

F 1989 May 4 - 1992 July 18 †  
'Mulenda' 188-SAN 4  
From San Diego.

M 1989 October 9 -  
'Jioni' 389-SDW 3  
From San Diego Wild Animal Park.

### Copenhagen, Denmark

#### Zoologiske Have

M 1933 May 15 - 1933 October 4  
Imported from Rhodesia by Ruhe. It was seven years on arrival. It probably was on loan for a few months, as the animal was returned to Ruhe. The final destination is not known.

M 1938 July 22 - 1969 June 19 †  
'Faru' 010-CPH 1  
This animal was one year old on arrival. Died of pneumonia. Meinertz (1972a, b) studied the muscles of the head and kidney.

### Dallas, TX, USA

#### Marsalis Park Zoo

M 1956 September 25 - 1957 March †  
Imported by the dealer Zeehandelaar. It was found to be full of ticks. It died of injuries received in Africa.

F 1956 October 25 - 1993 March 2 †  
'Marsha' 067-DAL 2  
Imported by the dealer Zeehandelaar, probably from Kenya. The date of arrival is taken from the research of Marvin Jones (in litt.). It was euthanized.

M 1959 October - 1986 October 17 †  
'Roscoe' 066-DAL 1  
Imported by the dealer Zeehandelaar.

F 1986 December 14 - 1994 December 31 †  
311-HAI 1  
From Haines City.

M 1989 July 16 -  
'Nyakasikana' 399-DAL 3  
Captured on 23rd June 1989 in the Zambesi Valley, Zimbabwe. The name recalls a base camp in Mana Pools National Park. It was seven years old on arrival.

F 1989 July 16 - 1995 March 22 †  
'Mabanzu' 400-DAL 4  
Captured on 23rd June 1989 in the Zambesi Valley, Zimbabwe. It was nicknamed 'Kamuchacha' meaning (in the Shona language) "a woman that no man should marry". On arrival, it was 15 years old.

F 1990 February 28 -  
'Zambezi' 433-DAL 5  
Born to female Mabanzu (400), which arrived at the zoo pregnant.

M 1994 July 3 -  
'Independence' 520-DAL 6  
Born to Nyakasikana (399) and Mabanzu (400).

### Delhi, India

#### Zoological Gardens

There were no black rhinoceroses in Delhi Zoo in February 1995.

M 1975 February 24 - 1993 February 2 †  
261-NDL 1  
From Oklahoma. Death recorded in *The Times of India*, 6th February 1993.

F 1975 February 24 - died before 1995 †  
262-NDL 2  
From Oklahoma.

M 1979 June 15 - 1979 July 15 †  
329-NDL 3  
Born to 261 and 262.

F 1981 December 28 - 1989 February 2  
330-NDL 4  
Born to 261 and 262. To Oklahoma.

M 1985 August 17 - 1985 August 17 †  
355-NDL 5  
Stillborn to 261 and 262.

### Denver, CO, USA

#### Denver Zoological Gardens

Freiheit (1975) gave details of the black rhinos in Denver.

M 1960 February 16 - 1984 July 13  
'Tombo' 124-DEN 1

Received from Kenya, donated by the Boettcher Foundation. It was about eight or nine months old on arrival. To Garden City.

*F* 1960 February 16 – 1984 July 13  
'Momba' 125-DEN 2  
Captured in Kenya, donated by Miss Helen Bonfils. It was 18 months old on arrival. To Garden City.

*M* 1966 January – 1966 January †  
Stillborn to Tombo (124) and Momba (125).

*F* 1968 January 19 – 1969 February 25  
'Snoopy' 126-DEN 3  
Born to Tombo (124) and Momba (125). To Memphis.

*F* 1971 January 6 – 1995 February 20 †  
'Lij' 163-DEN 4  
Born to Tombo (124) and Momba (125).

*M* 1973 September 8 – 1995 January 23 †  
'Rhinestone' 161-SFO 3  
From San Francisco.

*M* 1974 October 31 – 1975 December 4  
'Spook' 204-DEN 5  
Born to Tombo (124) and Momba (125). Gestation period 475 days. Photograph published in *Freiheit* (1975). To Toronto.

*F* 1977 August 25 – 1978 February 7 †  
'Nancy' 246-DEN 6  
Born to Rhinestone (161) and Lij (163).

*F* 1979 November 3 – 1979 December 26 †  
'Shakti' 279-DEN 7  
Born to Rhinestone (161) and Lij (163).

1981 July 9 – 1981 July 9 †  
304-DEN 8  
Aborted calf to Rhinestone (161) and Lij (163).

*F* 1982 November 15 – 1996 Sept. 11 †  
'Onyx' 328-DEN 9  
Born to Rhinestone (161) and Lij (163). A photograph was published in *International Zoo News*, 31 (1), January/February 1984, p. 33.

*M* 1984 July 10 –  
'Akeen' 332-CVG 13  
From Cincinnati.

*M* 1987 May 7 – 1988 June 27  
'Pete' 376-DEN 10  
Born to Rhinestone (161) and Lij (163). To Portland.

*M* 1989 October 30 – 1991 August 21  
'Jasper' 432-DEN 11  
Born to Rhinestone (161) and Lij (163). Photos can be seen in Kinsey (1990) and in *International Zoo News*, 37 (6): 38, September 1990. To Tampa.

*F* 1990 October 4 – 1992 January 30 †  
'Mchawi' 460-DEN 13  
Born to Akeen (332) and Onyx (328). Euthanized due to encephalomalacia.

*M* 1992 March 26 –  
'Tony' 458-DEN 12  
Born to Akeen (332) and Onyx (328).

*M* 1993 November 13 –  
'Mshindi' 516-DEN 14  
Born to Rhinestone (161) and Lij (163).

## Detroit, MI, USA

### Detroit Zoological Park

The zoo is located in Royal Oak, Michigan.

*M* 1930 June 5 – 1956 December 19 †  
'Johnny'  
According to Marvin Jones, this male and the following female were imported by Hagenbeck as 'Hans and Gretel'. The zoo records give Ruhe as the dealer. The origin is not clear.

*F* 1930 June 5 – 1955 June 3 †  
'Faro'  
Imported with the preceding male.

*M* 1957 May 18 – 1966 October 3 †  
'Colo'  
Imported from Tanganyika [Tanzania], as a gift through the Buhl Centennial Fund, together with following female. Died of chronic granular pneumonia.

*F* 1957 May 18 – 1964 November 11 †  
'Manda'  
Imported together with the male Colo, above. Died of internal complications soon after the birth of its second calf (Kreag 1966).

*M* 1962 April 19 – 1963 June 28

'Harvey' 054-OKC 1  
Born to Colo and Manda. To Oklahoma.

*F* 1964 November 1 – 1965 March 19 †  
'Beulah'

Born to Colo and Manda. The baby was hand-raised after the death of its mother, but it died of stomach perforation and hemorrhage (Kreag 1966).

*F* 1965 September 30 – 1985 June 6  
'Bibi' 053-DTT 2  
Imported from Kenya. To Oklahoma.

*M* 1967 June 19 – 1985 July 18  
'Watu' 052-DTT 1  
Imported from Kenya. It was 2.5 years old on arrival. To Miami.

*M* 1972 August 12 – 1973 November 1  
'Larry' 189-DTT 3  
Born to Watu (52) and Bibi (53). To Wichita.

*F* 1975 September 9 – 1984 October 29  
'Betsy' 212-DTT 4  
Born to Watu (52) and Bibi (53). To St Louis.

*M* 1981 May 4 – 1987 December 17 †  
'Hercules' 281-SFO 5  
From San Francisco. It died of cecal torsion.

*F* 1985 June 5 – 1994 March 6 †  
'Lottie' 055-OKC 2  
From Oklahoma.

*M* 1985 October 3 – 1985 October 12 †  
'J.J.' 361-OKC 8  
Born to Harvey (54) and Lottie (55), conceived in Oklahoma.

*M* 1988 July 13 –  
'Rudy' 409-PRO 1  
From New York Prospect Park.

*F* 1989 March 23 – 1990 August 8  
418-OKC 9  
Born to Hercules (281) and Betsy (212). To Tampa.

### Dresden, Germany

#### Zoologischer Garten

All zoo records were destroyed by fire in 1945. Dathe (in Zukowsky 1965: 157 note) mentioned

that he saw two black rhinos in Dresden in the summer of 1927. Perhaps this should be 1928? He probably refers to the male and female imported in 1928. A note about Dresden Zoo for 1928 in *Der Zoologische Garten* (1: 450, 1929) mentioned the arrival of only one young male rhinoceros. However, the report for 1929 (*Zoologische Garten* 2: 353, 1930) reported the arrival of another male rhinoceros which had been part of the Blumberg Transport. Brandes (1935) referred to a pair of rhinos at the zoo.

*M* 1928 – 1944 June 19 †  
Imported through Blumberg Transport from East Africa (Anonymous 1930). Died of tuberculosis (Ullrich and Ullrich 1968: 6).

*F* 1928 – 1936 †  
'Vesta'  
Caught near Fort Archambault in Chad, probably early in 1928. It was imported by Ruhe. The animal had a weak body, and it was euthanized in 1936. Martin Clemens made some drawings in September 1931 (Zukowsky 1965: 157-158, fig. 78).

*F* 1957 August 23 – 1961 November 3 †  
'Kigoma'  
Caught by De Beer on Mount Meru, Tanzania, imported by Ruhe (Zukowsky 1965: 157, figs. 52, 53). It was eight months old on arrival.

*M* 1960 October 6 – 1965 May 31  
'Faru'  
Origin unknown. To the dealer Ruhe, but final destination not known. This specimen possibly went to Amsterdam in 1967, but this has not been confirmed.

### Dubbo, New South Wales, Australia

#### Western Plains Zoo

This zoo with large enclosures was opened in 1976, as described by Strahan (1991). Each rhinoceros has a day yard of 51 × 39 m with shelters and a mud wallow, and a night yard measuring 24 × 18 m. In 1992 a group of nine (2/7) black rhinos was imported on loan from the Government of Zimbabwe.

*F* 1991 October 28 –  
'Taronga' 197-SYD 7  
From Sydney.

F 1991 November 7 – 1995 May 5 †  
'Dynah' 096-PER 1  
From Sydney.

M 1992 November 30 – 1993 February 4 †  
'Chamupupuri' 495-DUB 2  
From Zimbabwe. Two years on arrival. Died of trauma.

M 1992 November 30 – 1993 January 9 †  
'Tamana' 501-DUB 8  
Captured in Zimbabwe. Nine years old on arrival. Died while still in quarantine on Cocos Island. The cause was liver failure.

F 1992 November 30 –  
'Musina Pongo' 494-DUB 1  
Captured in Zimbabwe. Nine years on arrival.

F 1992 November 30 –  
'Chitundumusere' 496-DUB 3  
Captured in Zimbabwe. Nine years on arrival.

F 1992 November 30 – 1993 April 30 †  
'Chunga' 497-DUB 4  
Captured in Zimbabwe. Five years on arrival. Died of liver failure.

F 1992 November 30 –  
'Pepe Kale' 498-DUB 5  
Captured in Zimbabwe. Three years on arrival.

F 1992 November 30 –  
'Kalungwizi' 499-DUB 6  
Captured in Zimbabwe. Five years on arrival.

F 1992 November 30 –  
'Utahwedande' 500-DUB 7  
Captured in Zimbabwe. Three years on arrival.

F 1992 November 30 –  
'Dongajumu' 502-DUB 9  
Captured in Zimbabwe. Three years on arrival.

M 1994 November 26 –  
'Mwaniki' 302-CVG 11  
From San Diego WAP.

M 1994 November 27 –  
'Kwanzua' 463-MKE 3  
From Milwaukee.

M 1994 November 29 –  
'Siabuwa' 467-GLR 2  
From Glen Rose.

M 1994 November 29 –  
'Tbala' 485-SDW 7  
From San Diego.

## Dublin, Ireland

### Dublin Zoo

M 1960 September 6 – 1962 January 3 †  
'Congo'  
Imported by John Seago when it was still very young. Its origin is variously given as East Africa (T. Murphy, unpublished history of Dublin Zoo) or the Belgian Congo (current zoo records). Although the species occurred in a small region of Zaire, this would be the only captive specimen ever to have been caught there. The East African locality is more likely. The rhinoceros died in the very severe winter of 1961/1962 of enteritis and chilling.

F 1962 May 14 – 1976 November 19 †  
'Laura' 029-DUB 2  
From Rotterdam.

M 1963 April 26 – 1971 October 27 †  
'Ronald' 028-DUB 1  
From Bristol.

M 1969 July 9 – 1971 April 3  
'Ringo' 142-DUB 3  
Born to Ronald (28) and Laura (29). To Bekesbourne.

F 1972 April 20 – 1974 June 7  
'Luana' 190-LON 3  
From London. The zoo sold the animal to the dealer Chipperfield, who again sold it to Ruhe. Finally, the animal arrived in San Antonio on 28th December 1976.

M 1972 April 20 – 1973 May 2 †  
'Kijana' 157-WHI 3  
From Whipsnade.

M 1973 September 5 – 1976 October 13 †  
'Johnny' 215-DUB 4  
From Cleethorpes.

**Duluth, MN, USA***Lake Superior Zoo*

*M* 1964 June 18 – 1977 December 28 †  
 'Faru II' 064-DLH 1  
 From Pittsburgh. It died of pneumonia.

**Dvur Kralove, Czech Republic***Zoological Gardens*

The first ten specimens, four males and six females, all came together from an unspecified location in Kenya.

*M* 1971 August 22 – 1972 June 22  
 'Lord' 169-DVU 1  
 Captured in Kenya. To Jacksonville.

*M* 1971 August 22 – 1979 November 8 †  
 'Ken' 170-DVU 2  
 Captured in Kenya.

*M* 1971 August 22 – 1983 April 23  
 'Murray' 171-DVU 3  
 Captured in Kenya. It was exhibited in Wrocław from 11th February 1976 to 2nd October 1980, after which it returned to Dvur Kralove. In 1983 it went to Zurich.

*M* 1971 August 22 – 1978 April 22 †  
 'King' 172-DVU 4  
 Captured in Kenya.

*F* 1971 August 22 – 1978 June 26 †  
 'Zina' 173-DVU 5  
 Captured in Kenya.

*F* 1971 August 22 – 1978 April 7 †  
 'Elsa' 174-DVU 6  
 Captured in Kenya.

*F* 1971 August 22 –  
 'Jemima' 175-DVU 7  
 Captured in Kenya.

*F* 1971 August 22 – 1972 June 22  
 'Lenka' 176-DVU 8  
 Captured in Kenya. To Jacksonville.

*F* 1971 August 22 – 1978 May 24 †  
 'Tuty' 177-DVU 9  
 Captured in Kenya.

*F* 1971 August 22 – 1996 September 8 †  
 'Jarca' 178-DVU 10  
 Captured in Kenya.

*F* 1974 June 26 – 1983 April 23  
 'Sabi' 217-DVU 12  
 Imported from Kenya. To Zurich.

*M* 1974 July 2 – 1976 April 5  
 'Addo' 216-DVU 11  
 Imported from Kenya. To Lesna.

*F* 1974 July 2 – 1981 April 24 †  
 'Satara' 218-DVU 13  
 Imported from Kenya. Exhibited in Lesna from 5th April 1976 to 14th July 1979.

*F* 1977 October 2 – 1996 February 25 †  
 'Elvira' 244-DVU 14  
 Born to Ken (170) and Elsa (174).

*F* 1978 July 5 –  
 'Sali' 282-DVU 15  
 Born to Ken (170) and Sabi (217).

*M* 1978 November 13 –  
 'Isis' 268-CVG 9  
 From Cincinnati.

*M* 1979 March 18 –  
 'Jimm' 283-DVU 16  
 Born to King (172) and Jemima (175).

*M* 1984 May 15 – 1992 October 1  
 'Eli' 386-DVU 17  
 Born to 268 and Elvira (244). To Magdeburg.

*F* 1984 December 8 –  
 'Jessi' 387-DVU 18  
 Born to 268 and Jemima (175).

*M* 1986 August 26 – 1989 October 13  
 'Sado' 388-DVU 19  
 Born to 268 and Sali (282). To Atlanta.

*M* 1989 May 21 – 1990 November 21  
 'Jos' 391-DVU 20  
 Born to 268 and Jemima (175). To London.

*F* 1989 October 1 – 1991 September 4  
 'Sany' 417-DVU 21  
 Born to 268 and Sali (282). To Hannover.

*F* 1990 August 24 –  
 'Eimy' 431-DVU 22  
 Born to 268 and Elvira (244).



*M* 1991 June 23 – 1994 May 24  
'Jacob' 438-DVU 23  
Born to Eli (386) and Jessi (387). To Krefeld.

*M* 1991 September 13 – 1993 October 6  
'Jasper' 450-DVU 24  
Born to unrecorded male and Jemima (175).  
To Leipzig.

*F* 1992 February 24 – 1994 June 14  
'Sara' 481-DVU 27  
Born to Jimm (283) and Sali (282). To Leipzig.

*M* 1992 October 2 – 1996 October 15 †  
'Nabu' 277-MAG 2  
From Magdeburg.

*F* 1992 December 8 –  
'Edna' 455-DVU 25  
Born to Jimm (283) and Elvira (244).

*M* 1992 December 9 –  
'Cody' 260-SYD 8  
From Berlin Zoo.

*F* 1992 December 14 –  
'Jaga' 456-DVU 26  
Born to Jimm (283) and Jarca (178).

*F* 1994 April 11 – 1994 April 11 †  
593-DVU 28  
Stillborn to Nabu (277) and Jemima (175).

*F* 1994 April 11 –  
'Jiddah' 540-DVU 29  
Born to Nabu (277) and Jessi (387).

*M* 1994 October 26 –  
'Sauron' 541-DVU 30  
Born to Cody (260) and Sali (282).

## Edinburgh, UK

### Royal Zoological Society of Scotland

*M* 1922 December – 1923 November 20 †  
'Bill'  
The mounted hide and skull are kept at the Royal Museum of Scotland, Edinburgh (No. 1924.48). The label accompanying the specimen's records that it was a juvenile male, caught in December 1922 when it was one year old and that it drank three large buckets (12 gallons) of milk per day (A. Kitchener, in litt.)

*M* 1952 February 8 – 1952 December †  
A young male. The remains are at the Royal Museum of Scotland, Edinburgh (No. 1953.57).

*F* 1952 February 8 – 1954 December †  
No further particulars.

## Encino, TX, USA

### Bass Ranch

*M* 1989 July 16 – 1989 October 10 †  
'Agripa Nhamu' 413-BAS 1  
Imported from Zimbabwe.

*F* 1989 July 16 –  
'Chinyuku' 414-BAS 2  
Imported from Zimbabwe.

*F* 1989 September 11 –  
'Margarita' 424-BAS 3  
Imported from Zimbabwe.

*M* 1991 July 27 –  
'Gota Gota' 401-FOW 1  
From Fort Worth.

*F* 1992 April 21 –  
'Jota' 461-BAS 4  
Imported from Zimbabwe, when 14 years old.

*F* 1992 April 21 –  
'Charere' 462-BAS 5  
Imported from Zimbabwe, when one year old.

## Europe

### Early specimens

1677

In March 1677, a young rhinoceros was sent from the Cape of Good Hope to Holland by the Governor, Johan Bax. It died during the journey, but its remains were preserved in salt and, on arrival, were donated to the University of Leiden. It was exhibited in the gallery of the botanical garden. It was still present around 1735 when it was drawn by Jan Wandelaar (Rookmaaker 1976).

1767

There is a remarkable reference to a live rhinoceros in Europe published in 1767 by the German botanist and traveller, Samuel Gott-

lieb Gmelin (1745-1774). In his paper he tried to argue that, although the number of horns was variable in the rhinoceros, there was only one species: the animal is born without a horn, has one horn when it is young, two horns when it is adult and three when it gets older. To support his argument, he wrote (translated from the Dutch): "I have seen a rhinoceros which was brought from Africa when it was almost 1.5 years old; it had no horns on arrival, but soon after started growing the first one." Gmelin had lived in Berlin and studied in Leiden, Holland, in 1765-1767. In the end, the animal still only had one horn, so it could have been an Indian specimen, but this is incompatible with the supposed African origin.

ca. 1770

Sander (1779: 6), duplicated by J.D. Pasteur (1793: 141), wrote that "some years ago, a rhinoceros with two horns was transported by boat on the Rhine near Mannheim, but the boat sank and the animal drowned." [translated] There is no evidence that any of the known 18th century rhinos, of whatever species, died in Mannheim, Germany. The only support for this statement is a plate published by Blumenbach in a German translation of the African journeys of James Bruce. Blumenbach (1791: 283) stated that his plate 45 was "a real depiction of the double-horned rhinoceros, after the mounted specimen kept in the Natural History Cabinet in Mannheim, which I saw there some years ago" (translated from the German). It was a female. The animal in the plate looks like an Indian rhinoceros with obvious body-shields, showing a very long anterior horn and a shorter posterior one. Similar 'crosses' of Indian rhinos with two horns were known in the museums of Munich and Vienna, and were called *Rhinoceros cucullatus* Wagner, 1835 (cf. Zukowsky 1965: 133, Rookmaaker and Reynolds 1985: 140). It would be interesting to know more about this live rhinoceros on the Rhine around 1770, as well as why, at the end of the 18th century, German taxidermists tried to shape African rhinos like the more commonly known Indian species.

## Evansville, IN, USA

### Mesker Park Zoo

M 1956 May - (?)

Imported by Ruhe, either in May or June 1956. It was alive in 1962 (Reynolds 1963: 111). The zoo in Evansville (in litt. Dec. 1993) has no records available on this animal.

## Fasano, Italy

### Zoosafari di Fasano

F 1976 November 2 - 1978 May 2

'Ciccia' 424-NAP 5  
From Naples. To Sao Leopoldo.

## Fort Worth, TX, USA

### Zoological Park

F 1954 - 1964 February 13 †  
'Ginger'

479-FOW 5

M 1956 June - 1959 May 17 †

478-FOW 4

Imported by Zeehandelaar. Reynolds (1963) reported its stay in the zoo from 1956 until August 1959; the above dates were taken from the zoo records. According to Marvin Jones, it may have arrived together with the Dallas specimen in September 1956.

M 1989 July 16 - 1991 July 27

'Gota Gota' 401-FOW 1  
Captured in Zimbabwe. To Encino.

F 1989 July 16 - 1992 January 6

'Ngwete' 402-FOW 2  
Captured in Zimbabwe. To Linn.

M 1989 August 18 -

'Harry' 403-FOW 3  
Born to Ngwete (402), who was pregnant on arrival. Turner (1989) published a photograph.

F 1991 December 19 -

'Mtoto' 411-LIN 5  
From Linn.

**France**

*Travelling shows and circuses*

*1. Paris: Bouglione's Cirque d'Hiver*

*M 1954 January - ?*

From Naples zoo. The stay in the circus is not confirmed.

*2. Amar Circus*

*M 1955 April 26 - died (?)*

From Hamburg (Hagenbeck). The stay in the circus is not confirmed.

**Frankfurt am Main, Germany**

*Zoologischer Garten*

The history of this zoo, from its simple start on 8th August 1858, was well described and illustrated in the commemorative volume by Scherpner (1983). The rhinoceroses were always exhibited in the elephant house, which was remodelled in 1985 and named rhinoceros house.

*M 1909 August 24 - 1917 January 25 †*

*'Drucy'*

Received from Kenya as a gift of R. von Goldsmith-Rothschild (Scherpner 1983: 95). It was about one year old on arrival. The animal died during World War I as there was not enough food.

*M 1927 June 10 - 1945 March 25 †*

*'Faru'*

Caught on Mount Meru, Tanzania, and brought to Germany by the dealer Schulz. It was one year old on arrival. Zukowsky (1965: 104, fig. 51) and Anonymous (1930) published undated photographs of this animal. During the second World War, its lungs were affected and it died.

*M 1950 May 5 - 1978 February 2 †*

*'Peter'*

005-FRA 1

Imported by Fockelmann from East Africa (probably Tanzania), when it was two or three years old.

*F 1951 May 31 - 1952 January 5 †*

543-FRA 8

Bought from Fockelmann, but its country of

origin is not recorded (although probably Tanzania). It died of intestinal problems.

*F 1952 August 22 - 1963 April 14 †*

*'Katharina'*

544-FRA 9

Imported by Ruhe, probably from East Africa, when it was already adult. It died of anemia.

*M 1956 December 24 - 1957 August 8*

*'Konrad'*

545-FRA 10

Born to Peter (5) and Katharina (Faust 1958 with illustrations). The date of birth is 23rd December in the zoo records. Grzimek (1957) analyzed the milk of the mother. Illustrated in Klös and Frädrieh (1970, fig. 2) and Scherpner (1983: 144). To La Plata.

*F 1958 December 12 - 1971 November 29 †*

*'Lemuta'*

006-FRA 2

Born to Peter (5) and Katharina (Faust 1958). Illustrated in Klös and Frädrieh (1970, fig. 3) and Scherpner (1983: 178). The zoo records give the date of birth as 10th December. The animal died of anemia, and its remains were given to the Senckenberg Museum in Frankfurt.

*1967 May 31 - 1967 May 31 †*

Stillborn to Peter (5) and Lemuta (6).

*F 1969 November 11 - 1981 December 24 †*

*'Nabi'*

137-FRA 3

Born to Peter (5) and Lemuta (6). Died of heart and metabolic failure. Its remains are preserved at the Senckenberg Museum, Frankfurt.

*M 1978 June 27 - 1987 July 28*

*'Kifaru'*

252-STL 9

From St Louis. To Zurich.

*F 1982 June 10 - 1986 December 7 †*

*'Loredena'*

270-NAP 6

From Naples. It died of metabolic failure after anesthesia.

*M 1985 October 21 - 1985 October 23 †*

357-FRA 4

Born to Kifaru (252) and Loredena (270). It was injured by the mother shortly after birth and died of the effects.

*M 1987 July 27 - 1991 September 27*

*'Kifaru'*

349-ZRH 7

From Zurich. To Hannover.

*M* 1989 July 17 -  
'Kalusho' 394-FRA 6  
Imported from Zimbabwe, where it was born  
on 18th July 1986 in Marongora.

*F* 1989 July 17 -  
'Tsororo' 393-FRA 5  
Imported from Zimbabwe, where it was born  
in December 1986 in the Mana Pools National  
Park.

*F* 1994 February 14 -  
'Akura' 484-FRA 7  
Born to Kalusho (394) and Tsororo (393).

### Fresno, CA, USA

#### Chaffee Zoological Gardens

*M* 1963 July 9 - 1964 August 19  
'Romeo' 065-MEM 1  
Imported by Ruhe together with the following  
female. The animals were first kept at Louis  
Goebel's Jungleland in Thousand Oaks, be-  
cause their enclosure in Fresno was still be-  
ing constructed. It was four years old on ar-  
rival. To Memphis.

*F* 1963 July 9 - 1963 October 8 †  
'Juliette' 553-???  
Imported via Thousand Oaks, see previous  
entry. It was four years old on arrival.

*M* 1964 August 25 - 1965 January 27 †  
Imported by Ruhe with following female. It  
was four years old on arrival. On the day of  
its death, it was found with its horns caught  
between the bars.

*F* 1964 August 25 - 1970 December 29 †  
073-FAT 1  
Imported by Ruhe, origin not known. Died  
from haemangiosarcoma and metastasis of the  
heart.

*M* 1965 August 17 - 1965 December 26 †  
Captured in South Africa, imported by Wolf  
Delfs, Namibia.

### Fukuoka, Kyushu Island, Japan

#### Fukuoka Zoo

Dates taken from Sotani (1974: 46).

*F* 1956 November 24- 1965 September 15 †  
The animal was pregnant when it died (Sotani  
1974: 45).

*M* 1958 March 31 - 1976 July 8  
'Kuro' 320-KAG 1  
To Kagoshima.

*F* 1966 July 7 - 1967 February 2 †  
From Nagoya.

### Garden City, KS, USA

#### Lee Richardson Zoo

*M* 1984 July 14 - 1987 July 11 †  
'Tombo' 124-DEN 1  
From Denver. Euthanized due to ill health.  
The carcass was donated to the Museum of  
Natural History at Kansas University, Law-  
rence, KS, for display purposes.

*F* 1984 July 13 - 1990 December 28 †  
'Momba' 125-DEN 2  
From Denver. It died of cancerous tumors in  
the spleen and liver.

*M* 1990 August 1 -  
'Ahadi' (=Promise) 419-CHI 1  
From Chicago Lincoln.

### Gelsenkirchen, Germany

#### Ruhr Zoo

*M* 1966 May 25 - 1967 May 19  
'Kibo' 009-HAJ 3  
Imported from Kenya. It was three years old  
on arrival. To Hannover.

*M* 1974 April 11 - 1974 June 8 †  
'Pinoca' 116-LIS 4  
From Lisbon.

### Germany

#### Travelling shows and circuses

##### 1. Brumbach Circus

Six black rhinos were shipped by the dealer  
Ruhe to this circus between 1953 and 1957  
(Reynolds 1963: 107). Their stay in the circus

is not otherwise known.

1953 March – ?

1953 July – ?

1954 May – ?

1955 April – ?

1955 May – ?

1957 June – ?

## 2. Holzmüller Circus

F 1952 April – (?)

Imported by L. Ruhe, Hannover. No further particulars.

## 3. Carl Hagenbeck's Circus

See Hamburg Stellingen.

## 4. Menagerie A. Bach

1880

There is a small guidebook to a travelling menagerie called 'Europa's Grösste Menagerie von A. Bach' (Europe's largest menagerie owned by A. Bach). It is undated, but sometime in the last quarter of the 19th century is realistic. On page 8 of the guidebook, the owner states that he is showing one specimen of a double-horned African rhinoceros: "Das von der menagerie besessene Exemplar ist zweihörnig; eine ungemein seltene Abart dieser Race." No further information is available either about this Mr. A. Bach or about the animal. I assume it may have been one of the specimens which toured with Hagenbeck's Nubian Caravan from about 1878 (see Hamburg, Carl Hagenbeck).

## Glen Rose, TX, USA

### Fossil Rim Wildlife Centre

M 1984 March 25 – 1985 March 6 †

'Macora' 416-LIN 8

Imported from South Africa together with the following female and three animals for Bentzen's Ranch in Linn.

F 1984 March 25 – 1985 January 14 †

'Makin' 415-MAN 1

Imported from South Africa.

M 1991 April 21 – 1994 November 29

'Siabuwa' 467-GLR 2

Captured in Zimbabwe, when three years old. To Dubbo.

M 1991 April 21 – 1992 June †

'Chete' 469-GLR 3

Captured in Zimbabwe, when two years old.

F 1991 April 21 –

'Sinampande' 466-GLR 1

Imported from Zimbabwe, when 14 years old.

F 1991 April 21 – 1992 June †

'Siantula' 470-GLR 4

Captured in Zimbabwe, when two years old.

F 1993 November 29 – 1994 April 18 †

334-LAX 7

From Los Angeles.

## Granby, Quebec, Canada

### Société Zoologique de Granby

F 1959 September 6 – alive in 1962 †

The dates were recorded by Reynolds (1963: 105). The zoo has no further information.

M 1966 – 1968 September 16

'Arthur' 151-LAX 2

Imported from Kenya. To Los Angeles.

M 1966 May 11 – 1986 May 7 †

'Bulley' 079-GRA 1

From Hamburg on SS *Ronald Russ*. The animal was euthanized after ataxia of the hind legs. The skull is kept at the zoo.

F 1969 May – 1970 December 5 †

143-GRA 2

This is the same animal as studbook No. 307-GRA 5, deleted in Klös and Frese (1993).

F 1973 June 6 – 1986 December 17 †

'Suzie' 293-GRA 4

It died of leptospirosis.

M 1979 December 11 – 1980 September 3

'Cornelius' 292-GRA 3

Born to Bulley (79) and Suzie (293). It weighed 65 lbs on birth. It was sent to a dealer on the above date, and later arrived in San Diego.

*F* 1982 August 11 – 1983 October 28  
 'Mimi' 344-GRA 6  
 Born to Bulley (79) and Suzie (293). To Seoul.

### Grodno, Belarus

#### Grodno Zoo

*M* 1973 August 3 – 1982 December 24 †  
 'Tschope' 044-LED 1  
 From St Petersburg. The studbook first recorded the animal again under No. 149-LED 2, which was withdrawn in Klös and Frese (1991).

### Haines City, FL, USA

#### Circus World

The collection was owned by Roman Schmitt.

*F* 1974 October 24 – 1986 December 14  
 'Toshi' 311-HAI 1  
 Imported from Kenya. It was exhibited in Columbus, from 6th October 1984 to 23rd October 1986. To Dallas.

### Hamburg, Germany

#### 1. Zoologischer Garten

1881 May – 1882

The animal was on loan from an unidentified owner (probably Hagenbeck): "jungeres, zweihörniges Nashorn ... in Pflege gegeben, gehört also uns nicht" ["younger double-horned rhinoceros ... deposited, does not belong to us"] (Sigel 1881). It was absent on 12th May 1882; it had been returned to its owner. Of course, Sigel's statement did not specify the animal's identity, and it could have been a Sumatran rhinoceros. I assume this animal at Hamburg Zoo was one of the four exhibited in Hagenbeck's Nubian Caravan from 1878 (see Hamburg, Hagenbeck), and temporarily kept at the zoo.

#### 2. Carl Hagenbeck (dealer)

#### Zoo in Stellingen since 1908

The older records of the Hagenbeck company have all been destroyed. Hagenbeck imported a large number of rhinos, and many were exhibited for some time in Stellingen. The

following have been noted in the literature in the period before World War II:

1878 – 1887 (?)

After 1874, Hagenbeck staged anthropological-zoological shows each with its own theme (Dittrich and Rieke-Müller 1990: 45). Among these was a 'Nubian Caravan' (see Fig. 105). This show toured around Germany probably starting in 1875. When the show arrived in Berlin on 24th September 1878, it included four black rhinos (Klös 1969: 78; *Isis* (Berlin), Vol. 3 No. 21, 10th October 1878, p. 168). Their length of stay and disposal is not clearly known. One may have been shown at Hamburg Zoo from May 1881 to 1882. In 1887, one black rhinoceros was still present in Stellingen (Noack 1889: 107).

1878 – 1888

One of the four specimens which toured with Hagenbeck's Nubian Caravan. To Wrocław.

1878 – (?)

One of the four specimens which toured with Hagenbeck's Nubian Caravan. It could be that one of them was later seen with the travelling menagerie of A. Bach (see Germany, Bach).

1878 – (?)

The disposition of the fourth specimen from the Nubian Caravan in 1878 is not known.

*M* 1911 – 1913 (?)

'Bob'

This male and the following female were imported by Christoph Schulz. They were caught near Meru in Tanzania (Zukowsky 1965: 55). Mitchell (1911) mentioned the presence of a pair of black rhinos in 1911. The male's ears were hairy, the female's were more normal. The same animals were described by de Beaux (1912: 561), who added that they were about three years old. They were seen in 1913 by Zukowsky (1956: 14), who called them 'Bob' and 'Marianne'. Carl Hagenbeck regularly issued a Führer (guidebook) to the Zoo in Stellingen. In the fifth edition of April 1911, for the first time there is a photograph of three black rhinos, probably this male and the two following specimens.

*F* 1911 – 1913 (?)

'Marianne'

Captured in Meru, Tanzania, imported by Schulz together with the preceding male. About two years old on arrival.



1912

In 1912, de Beaux (1912: 561) recorded the presence of a young animal of about one year old, apart from the preceding pair. Zukowsky (1956: 10) said that Schulz imported three black rhinos, probably the preceding pair and this young example.

*M* 1914 July 10 – 1916 October 15 †

A male, 16 months old, was caught by Müller on the Kunene River, which forms the border between Namibia and Angola. The hide and skeleton were preserved at the Zoological Museum of Hamburg (No. 40.056). It was the type *Diceros bicornis occidentalis* Zukowsky, 1922. Zukowsky (1965, figs. 19-21) published three photographs of the animal. On another occasion, Zukowsky (1956: 16) erroneously recorded the date of arrival as 1922.

*M* ca. 1925

A young male was caught by Christoph Schulz at Choma, near Lake Kariba in S. Zambia. It was about eight months old on arrival. The exact date is not known, but Zukowsky (1965: 81, fig. 39) recorded its presence in the mid-1920s.

1931

Three specimens were caught on 5th January 1931 by the Katzenstein Brothers in Southern Rhodesia [Zimbabwe]. Possibly one of these went to New York Bronx, arriving in January 1932 (Zukowsky 1965: 83, fig. 41). The animal on deposit in Amsterdam in August 1931 must also have been one of these rhinos, but its disposition is not known.

1933

In 1933 Hagenbeck took a circus exhibition to Japan. A black rhinoceros was shown in Tokyo in the spring of that year. As no Japanese zoo could afford to buy it, Hagenbeck left the country with it again (Rookmaaker and Reynolds 1985: 143).

*Trade specimens, 1945-1965*

Reynolds (1963: 106) listed 12 specimens imported since 1945, and an additional one was recorded by M. Jones (in Rookmaaker and Reynolds 1985: 141):

*M* 1951 October 1 – 1957 July 2 to Berlin Zoo  
*M* 1953 April 28 – 1953 May 16 to Washington

*F* 1953 April 28 – 1953 June 17 to San Diego  
*M* 1954 – 1955 April 26 to France: Amar

*M* 1954 April 18 – 1954 May 20 died  
*M* 1954 April 18 – 1954 September 23 died  
*M* 1954 April 18 – 1954 May 13 to Pittsburgh  
*M* 1954 April 18 – 1955 November 1 to Munich

*F* 1954 April 18 – 1955 February 16 died  
*F* 1954 April 18 – 1954 May 13 to Pittsburgh  
*F* 1955 June 4 – 1955 November 1 to Munich

*M* 1957 April 16 – 1959 September 30 to Amsterdam

*F* 1957 April 16 – 1959 September 30 to Amsterdam

Hannover, Germany

*Zoologischer Garten*

Hannover Zoo was used as a base for animal trade by the Ruhe family. The company was started in Alfeld near Hannover by Ludwig Ruhe in 1860. His son Hermann Ruhe (1895-1978) had an agreement with the Town Council of Hannover on his use of the garden and his commitment to show a number of species there. This agreement lasted from 1924 to 1971 in various forms (Dittrich and Riecke-Müller 1990: 97, 102, 137). Ruhe was an active and sincere animal dealer throughout much of this century (see obituary by H. Dathe in *Der Zoologische Garten*, 50 (1980): 264-266). In various periods, Ruhe had or cooperated with a station near Arusha in Northern Tanzania, where animals were caught. The farm was supervised by his son Herrmann Ruhe Jr. from 1954-1960 (Dittrich and Riecke-Müller 1990: 137).

Reynolds (1963: 107) published a list of 36 black rhinos which passed through Hannover between 1950 and 1963. This list illustrates the difficulties encountered in tracing imports and transfers of captive rhinos. Of the 36 specimens, 15 were recorded by zoos, 11 were shipped to zoos or circuses without their arrival being known from other sources, nine were shipped to uncertain collections, while one died before shipment. At the same time, the present compilation includes 11 black rhinos which were said to be imported by or through Ruhe, but which cannot be matched with the dates in the list published by Reynolds. The pair which arrived in November 1962, recorded by Reynolds (1963: 107), was probably sold by Ruhe, but their destination is not clear. These rhinos that passed through

Hannover for a short period are not listed here.

*M* 1926 – 1935 (?)

'Stamper'

Imported by Ruhe, probably from Tanzania. It was 1.5 years old on arrival (Dittrich and Rieke-Müller 1990: 107, illustration on p. 106). It was seen by W. Mann in 1929 (see Reynolds 1963: 107). In May 1935, it travelled to Geneva and Basel for the summer months (Dittrich and Rieke-Müller 1990: 124). According to reports received by Reynolds (1963: 110), it must have died in transit between Basel and Geneva.

*F* 1954 July 3 – 1954 August 13 †

Imported by Ruhe. Died before it could be sold (Reynolds 1963: 107).

*F* 1960 September 20 – 1986 March 25 †

'Susi'

008-HAJ 2

Caught on Maraveldt, Tanzania. See Fig. 112.

*M* 1961 June 12 – 1973 January 29 †

'Conni'

007-HAJ 1

Caught in the region around Isiolo, Kenya.

*M* 1965 June 28 – 1966 June 27

'Kasper' ('Rupert')

022-HOL 1

Born to Conni (7) and Susi (8), gestation 469 days. Dittrich (1965, 1967) described the birth, with several photographs. To Bristol.

*M* 1967 May 19 – 1967 August 28

'Kibo'

009-HAJ 3

From Gelsenkirchen. To Magdeburg.

*F* 1968 January 3 – 1969 June 27

'Stella'

104-HAJ 4

Born to Conni (7) and Susi (8). Klös and Frädrieh (1970, fig. 4) published a photograph. To Budapest.

*M* 1970 June 29 – 1985 October 10 †

'Fridolin'

145-HAJ 5

Born to Conni (7) and Susi (8). It was exhibited in Zurich from 2nd April 1981 to 25th April 1983, after which it was returned to Hannover. Died of a metabolic disorder.

*F* 1991 September 4 –

'Sany'

417-DVU 21

From Dvur Kralove.

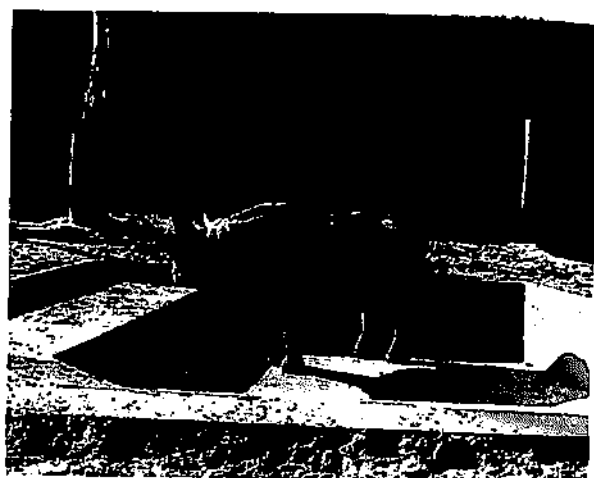


Fig. 112. Hannover, April 1971: female 'Susi' with calf.

*M* 1991 September 27 –

'Kifaru'

349-ZRH 7

From Frankfurt am Main.

### Havana, Cuba

#### Zoological Gardens

*F* 1976 –

'Duga'

299-LHC 1

Captured in Tanzania.

*M* 1979 October 5 –

'Little Foose'

258-OKC 6

From Oklahoma.

### Hiroshima, Japan

#### Asa Zoo

Sakamoto (1989) reviewed the records of black rhinoceroses in Hiroshima, using several photographs. The gestation periods recorded were 436, 440, 444, 447, 449, 461, 476 days.

*M* 1971 July 14 –

'Kuro'

182-HIR 1

Imported from Kenya.

*F* 1971 July 14 –

'Hana'

181-HIR 2

Imported from Kenya.

1972 December 22 - 1972 December 22 †  
Miscarriage (Sotani 1974: 45), to Kuro (182) and Hana (181).

*M* 1977 April 10 – 1983 November 10  
'Toshi' 259-HIR 3  
Born to Kuro (182) and Hana (181). To Miami.

*F* 1979 September 12 – 1987 April 13  
'Nami' 284-HIR 4  
Born to Kuro (182) and Hana (181). To Taipei.

*M* 1981 March 31 – 1983 November 10  
'Aki' 305-HIR 5  
Born to Kuro (182) and Hana (181). To Colorado Springs.

*M* 1982 October 30 – 1989 September 18  
'Thomy' 346-HIR 6  
Born to Kuro (182) and Hana (181). To Osaka.

*F* 1984 August 9 – 1986 April 25  
'Sachi' 354-HIR 7  
Born to Kuro (182) and Hana (181). To Taipei.

*M* 1986 March 3 – 1986 March 3 †  
373-HIR 8  
Stillborn to Kuro (182) and Nami (284).

*F* 1986 September 10 –  
'Ai' 374-HIR 9  
Born to Kuro (182) and Hana (181).

*M* 1988 July 24 – 1992 October 9  
'Ron' 420-HIR 10  
Born to Kuro (182) and Hana (181). To Yokohama.

*F* 1991 June 30 –  
'Lona' 445-HIR 11  
Born to Kuro (182) and Hana (181).

*F* 1993 July 26 –  
'Saki' 492-HIR 10  
Born to Kuro (182) and Hana (181).

*F* 1994 January 4 –  
'Lona' 493-HIR 11  
Born to Kuro (182) and Ai (374).

# **Hitachi, Japan**

## **Kamine Zoo**

*F* 1969 June 5 – 1974 September 6 †  
325-HIT 3

*M* 1969 June 12 – 1969 December 12 †  
324-HIT 2

*M* 1971 July 21 – 1973 November 16 †  
326-HIT 4  
From Kumamoto.

*M* 1974 October 29 – 1993 February 6 †  
'Doro' 323-HIT 1

*F* 1977 April 6 –  
'Barbara' 185-OSA 4  
From Osaka.

*F* 1980 November 11 – 1980 November 11 †  
327-HIT 5  
Stillborn to Doro (323) and Barbara (185).

*F* 1988 August 21 – 1991 January 8  
'Lora' 421-HIT 6  
Born to Doro (323) and Barbara (185). To Yokohama.

*M* 1990 June 8 –  
'Maki' 434-HIT 7  
Born to Doro (323) and Barbara (185).

*M* 1993 August 20 –  
'Metro' 472-MIA 9  
From Miami.

# **Holland, MI, USA**

## **Collection of George F. Getz**

*F* 1929 April – 1933 October 28  
The origin of this animal is not known. To Chicago Brookfield.

# **Hollywood, CA, USA**

## **Metro-Goldwyn-Mayer (MGM) Studios**

*F* 1933 October – 1934 October 17  
'Mary'  
From John Benson's farm in Nashua. In the winter of 1933/1934 the rhinoceros starred in the film 'Tarzan and his mate'. From April to October 1934 it went on tour to promote this film. On 17th October 1934 it arrived at Sarasota, FL, after it had been bought by the Ringling Bros., Barnum and Bailey circus. Died in the summer of 1935 (Reynolds 1963: 103).

**Jacksonville, FL, USA***Jacksonville Zoological Park*

Rost (1993) provided some background information on the black rhinos at Jacksonville.

*F* 1960 February 14 – 1970 April 6 †  
'Dolly' 070-JAX 2

Captured in Kenya. It was three years on arrival. The date of arrival refers to the time it landed in the harbour of New Orleans; it may have reached the zoo later. Reynolds (1963: 111) listed a female black rhinoceros arriving on 15th February 1961, which had been purchased from Miami Rare Bird Farm and shipped from Mombasa on 27th January 1961. The 1960 date is given in the zoo records and in Rost (1993).

*M* 1961 September 21 – 1970 March 29 †  
'Faru I' 069-JAX 1  
From Pittsburgh.

*M* 1972 August 2 – 1978 April 22  
'Lord' 169-DVU 1  
From Dvur Kralove. To San Antonio.

*F* 1972 August 2 – 1978 May 14  
'Lenka' 176-DVU 8  
From Dvur Kralove. To Columbus.

**Japan***Travelling shows and Circuses*

In 1953, three black rhinos arrived in Japan. They were exhibited at different circuses. Details of their stay and longevity are not available (Sotani 1974, Kawata in litt.).

1953 March 24 – (?)

Two years old on arrival. It is not known which circus the animal travelled with.

*M* 1953 April 30 – (?)  
After this animal had temporarily been housed at Kobe Zoo, it went to a travelling menagerie owned by the Kinoshita Circus.

1953 August 5 – (?)

Travelling with the Shibatu Circus.

**Jerusalem, Israel***Biblical Zoological Garden*

*M* 1963 – 1968 September 20 †  
'Franky' 085-JER 1  
Captured in East Africa.

*F* 1963 – ?  
Arrival recorded in Reynolds (1963: 108).

**Johannesburg, South Africa***Zoological Gardens*

*M*, 1914 March 7 – 1948 March 21 †

*F* 1924 June – 1948 April 24 †

*M* 1952 December – 1953 April 26 †

*M* 1972 September 2 – 1987 March 25 †  
'Frans' 136-PRY 3  
From Pretoria. Died of a twisted gut. The carcass went to the Transvaal Museum, where the skeleton is on show.

**Jos, Nigeria***Jos Museum Zoo*

*M* 1976 October 28 –  
'Embu' 222-BE 6  
From Berlin Zoo.

*F* 1976 October 28 – 1977 July 5 †  
'Arusha' 002-BE 2  
From Berlin Zoo.

**Kagoshima, Japan***Hirakawa Zoological Park*

*F* 1972 October 5 – 1983 September 5 †  
'Hanako' 321-KAG 2  
Received from a dealer in Yokohama. Died of acute haemorrhagic enteritis.

*M* 1976 August 25 – 1986 June 12  
'Kuro' 320-KAG 1  
From Fukuoka. To Nagoya.

*M* 1981 April 23 – 1983 February 21 †  
'Kurobe' 322-KAG 3  
Born to Kuro (320) and Hanako (321). Died of enteritis.

## Kansas City, MO, USA

### Kansas City Zoo

*M* 1960 October 21 – 1961 April †  
'Jake'

Imported by the dealer Deets Picket of Kansas City. In 1961, it was sold to an unknown collection in Florida and later to the Dominican Republic.

*F* 1960 October 21 – 1960 October †  
Arrived together with the preceding male. Died within one week of hepatitis (Reynolds 1963: 111).

*M* 1961 June 8 – 1972 January 17 †  
'Jiggs' 062-MKC 1  
Imported by the dealer Leon Leopard, Vivo Animales, Lorena, Texas.

*F* 1961 June 8 – 1961 August †  
Imported by Zeehandelaar. Died of a heart attack.

*F* 1963 April 26 – 1972 May 24  
'Rosie' 063-MKC 2  
From Chicago Brookfield. To Wichita.

1967 July – 1967 July †  
Born to Jiggs (62) and Rosie (63), lived for only 26 hours.

*M* 1969 November 8 – 1969 November 13 †  
Born to Jiggs (62) and Rosie (63), recorded by Marvin Jones.

1970 – 1970 †  
Stillborn to Jiggs (62) and Rosie (63).

*F* 1984 July 15 – 1987 January 13  
'Gertrude' 331-STA 5  
From San Francisco. To Colorado Springs.

*M* 1984 November 22 – 1985 July 12 †  
'Blackstone' 337-SPO 7  
From San Francisco.

*F* 1988 January 14 – 1988 January 27 †  
360-LAX 9  
From Los Angeles.

## Kenya

### Various parks and collections

The black rhinoceros is native to Kenya. Several specimens have been kept by private individuals for shorter or longer periods and were often released into the wild again afterwards. In recent years, rhinos have been translocated to semi-wild settings in private parks, which cannot really be differentiated from the usual game reserves or national parks. To provide an idea of these endeavours, some are listed here.

#### 1. Nairobi: Nairobi Animal Orphanage

This collection at the entrance to Nairobi National Park is run by the Kenya Wildlife Services. It opened its gates in 1963. It is likely that several rhinos were kept here, but only a few details are available.

##### 1969

'Shorty' was said to be safer inside the orphanage than in the park "where lions would quickly haul him down; his deformed stature and his lack of the safety equipment provided by a horn would make him easy prey" (*Africa*, 3 (9), March 1969, p. 46).

*M* 1983 November – 1984 April 17  
'Morani'

Hand raised for six months, before it was moved to Ngare Sergoi in April 1984. On 24th September 1986, it returned temporarily to the orphanage (Merz 1991). In June 1989 it went to Ol Pejeta Game Ranch, near Nanyuki, Kenya.

#### 2. Nairobi: David Sheldrick Wildlife Trust

David Sheldrick was the Warden of Tsavo East National Park for about 30 years until his death in 1977. He and his wife Daphne cared for orphaned or abandoned rhinos (and other animals). The animals are only accepted provided there is a guarantee that they can enjoy a quality of life in wild terms when full grown. In the 1980s and 1990s, the Trust maintained a nursery in Nairobi, which cooperates with

the Animal Orphanage. The following information was kindly provided by Mrs. Daphne Sheldrick, Nairobi (in litt. 11 Jan. 1994):

*M 'Rufus'*

In 1960. See below under Kenya, Voi.

*M 'Reudi'*

Born in 1960 in Darajani. Went to Solio Ranch, where it was killed around 1992.

*M 'Stub'*

In 1967, it was left by the mother on a sisal estate. It was killed in 1972 by another rhinoceros in the Animal Orphanage.

*F 'Stroppie'*

Born in October 1970 in Tsavo National Park, where the mother perished in a drought. Translocated to Solio Ranch in 1976 for security reasons.

*F 'Pushmi' (or 'Hoshim')*

Born on 9th October 1983 in Tsavo National Park. It was abandoned by its mother. Photographs in *Africana*, 6 (5), April 1977, p.16, 18-19. To Solio Ranch.

*M 'Sam'*

Born in August 1986 in the Maasai Mara Game Reserve. It was nursed after being attacked by a lion. It was released into the Tsavo East National Park on 28th June 1993.

*F 'Amboseli'*

Born in April 1987 in Amboseli Game Reserve. The mother was speared by a Maasai when the baby was six months old. It was released together with 'Sam' into the Tsavo East National Park on 28th June 1993.

*M 'Skud'*

Born in Nairobi National Park in February 1991. The mother was killed by other rhinos.

**3. Nanyuki: Ol Pejeta Game Reserve**

This is a small private reserve owned by a hotel chain.

*M 1989 June -*

*'Morani'*

From Nairobi Animal Orphanage. It is kept in a fenced enclosure and guarded by watchmen. It was so tame that even strangers could touch it and sit on it. See Fig. 113.

*M 1991 August -*

*'Jupiter'*

Born in Ngare Sergoi Sanctuary, Kenya.

**4. Ngare Sergoi Sanctuary**

This is a 5000-acre sanctuary north of Mount Kenya, on the Lewa Downs ranch owned by David Craig. It is managed by Anna Merz, with rhinoceros protection as its main objective (Vigne 1984, Merz 1991). The dates given below are taken from Merz (1991) and from information provided by I.H. Craig (in litt. July 1994).

*M 1984 March 11 - 1988 April 15.*

*'Goqot'*

Caught in the Kitengela Conservation area near Nairobi National Park. It was released in Meru National Park.

*F 1984 April 27 -*

*'Shaba'*

Caught in Shaba Game Reserve on 6th April 1984.

*M 1984 April 17 - 1986 September 24*

*'Morani'*

The mother was poached in Amboseli, Kenya. This baby was hand-raised for six months in the Nairobi Animal Orphanage. In 1984 it came from Nairobi, and was returned to the orphanage in 1986. In June 1989 it was released in Ol Pejeta Game Farm.

*F 1984 April 29 - 1991 September †*

*'Rongai'*

Caught in the vicinity of Mweiga, Kenya. Died after falling off a cliff.

*M 1984 April 29 - 1986 October 18*

*'Amboni'*

Caught in the vicinity of Mweiga, Kenya. Released into Nakuru National Park.

*F 1984 August 5 -*

*'Juno'*

Caught in February 1980 and first kept at Solio Ranch.

*F 1984 August 10 -*

*'Stumpy'*

Caught in the Kibwezi area, and first kept at Solio Ranch.



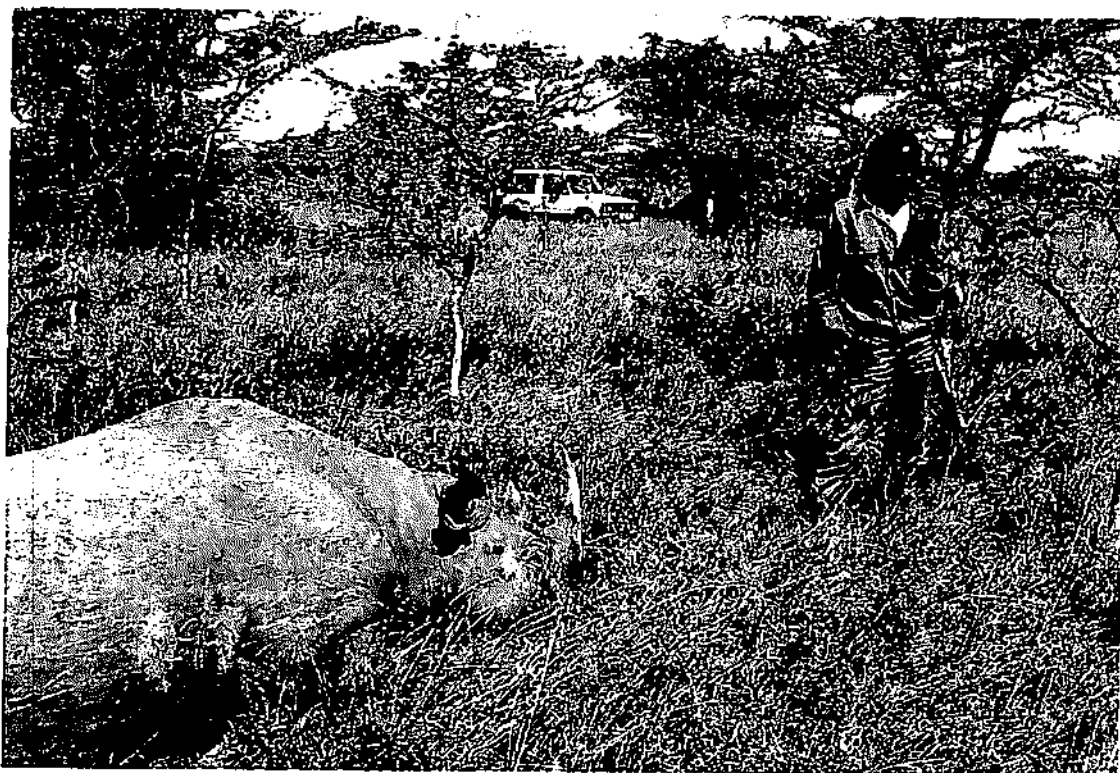


Fig. 113. Tame black rhino 'Morani' kept in semi-wild conditions at Ol Pejeta Game Reserve, Kenya in 1990.

1984 September 15 – 1984 Sept. 18 †  
Born to female Juno. It only survived three days.

F 1984 October 1 –  
'Solio'  
Transferred from Solio Ranch.

M 1985 February 14 – 1985 December 10 †  
'Wamba'  
Caught near the town of Wamba in the Mathews Range. Killed in a fight.

F 1985 February 15 –  
'Samia'  
Born to female Solia. On 17th August 1985, it was flown to Keekorok Lodge in Maasai Mara Game Reserve to be blessed by Pope John II (*Daily Nation*, Nairobi, 17th August 1985).

M 1985 March – 1990 July 30 †  
'Bahati'  
Born to female Stumpy. It was killed in a fight.

F 1985 April 22 – 1986 January 7 †  
'Sabatchi'  
Caught on Mount Sabatchi in the Mathews Range of Northern Kenya. Died after an illness.

M 1986 May 28 – 1991 August  
'Jupiter'  
Born to female Shaba. To Ol Pejeta Game Reserve.

1986 January 29 – 1986 February 2 †  
Born to female Rongai.

F 1986 June 28 –  
'Juniper'  
Born to female Juno.

F 1988 February 16 –  
'Jilali'  
Born to female Rongai.

F 1988 March 9 –  
'Zania'  
Born to female Solio.

F 1989 February –  
'Mawingo'  
First kept at Solio Ranch, then transferred to Nakuru National Park.

M 1990 June 24 – 1991 May †  
'Osapat'  
From Solio Ranch. It fell off a cliff during a fight.

*F* 1994 June 30 –  
'Ebony' 489-TYL 1  
From Tyler.

### Lapalala, South Africa

*Home of Clive and Conita Walker, at Vaalwater near Nijlstrom*

*M* 1992 July –  
'Bwana'  
Born on 11th July 1992 to a female called Makoko, bought by Dale Parker at the Natal Parks Board auction and released into Lapalala Wilderness. The baby rhino was found abandoned in the bush and was first raised in the Onderstepoort Veterinary Hospital near Pretoria, and later transferred to the home of the Walkers.

### La Plata, Argentina

*Zoologico La Plata*

*M* 1957 September 23 – 1959 August 9 †  
'Konrad' 545-FRA 10  
From Frankfurt am Main.

### Leipzig, Germany

*Zoologischer Garten*

*F* 1929 April – 1929 April  
Imported by Christoph Schulz when it was one year old. It was caught on Mount Ufiome, South of Lake Manyara, Tanzania (Schneider 1930: 23). To Chemnitz.

*F* 1941 February 6 – 1947 April 24  
Imported by Schulz from Tanzania. To Kiev.

*F* 1971 June 25 – 1986 January 14 †  
'Ute' 167-LEJ 2  
From Thoiry.

*M* 1971 November 27 – 1988 April 5  
'Klaus' 166-LEJ 1  
To Berlin Zoo.

*F* 1993 September 23 –  
'Saba' 436-BE 15  
From Berlin Zoo.

*M* 1993 October 6 –  
'Jasper' 450-DVU 24  
From Dvur Kralove.

*F* 1994 June 14 –  
'Sara' 481-DVU 27  
From Dvur Kralove.

### Lesna, Czech Republic

*Zoological Gardens and Castle*

*M* 1976 April 5 – 1978 January 31 †  
'Addo' 216-DVU 11  
From Dvur Kralove.

*F* 1976 April 5 – 1979 July 10  
'Satara' 218-DVU 13  
From Dvur Kralove. To Dvur Kralove.

### Linn, TX, USA

*Calvin Bentsen's La Coma Ranch, near McAllen, TX, USA*

The project to breed black rhinos on this private ranch and the arrival of the rhinos were mentioned by Kagan (1984), Reid (1985), Reinhold (1984), Vollers (1989) and Webster (1984).

*M* 1984 March 24 –  
'Macho' 378-LIN 1  
Received from South Africa. It was 12 years old on arrival.

*F* 1984 March 24 – (?),  
'Chula' 379-LIN 2  
Received from South Africa, when it was 15 years old.

*M* 1987 July 28 – 1987 July 28 †  
380-LIN 3  
Stillborn to Macho (378) and Chula (379).

*F* 1989 February 28 – 1991 December 19  
'Mtoto' 411-LIN 5  
Born to Macho (378) and Chula (379). To Fort Worth.

*F* 1989 May 17 –  
'Thombi' 410-LIN 4  
Imported from Zimbabwe, it was six years old on arrival.

*F* 1989 July 16 – 1989 October 10 †  
'Marangora' 412-LIN 6  
Imported from Zimbabwe, it was four years  
old on arrival.

*M* 1991 July 20 – 1991 July 20 †  
446-LIN 8  
Stillborn to Macho (378) and Thombi (410).

*F* 1991 December 3 –  
'Gloria' 447-LIN 9  
Born to Macho (378) and Chula (379).

*F* 1992 January 6 –  
'Ngwete' 402-FOW 2  
From Fort Worth.

*F* 1992 September 12 – 1992 Sept. 12 †  
487-LIN 11  
Stillborn to Macho (378) and Thombi (410).

*F* 1993 August 29 –  
'Kit' 486-LIN 10  
Born to Macho (378) and Ngwete (402).

*M* 1994 May 30 –  
'Chirundu' 521-LIN 12  
Born to Macho (378) and Thombi (410).

## Lisbon, Portugal

### *Jardim Zoologico e de Aclimação em Portugal*

In 1977, Brouard (1978) saw a black rhinoceros with a small artificial third horn between the ears.

*M* 1955 June 10 – 1983 December 13 †  
'Coroca' 113-LIS 1  
Caught in Curoca, Moçâmedes [Mossamedes] Dt., S.W. Angola. On arrival it was about six months old. Zukowsky (1965, figs. 29,30,32,33) published some photographs of it.

*F* 1958 August 27 – 1982 January 3 †  
'Pola' 114-LIS 2  
Imported from Angola.

*M* 1965 June 4 – 1967 August 8  
'Calhambeco' 115-LIS 3  
Imported from Angola. To Sao Paulo.

*M* 1965 September 22 – 1974 April 11  
'Pinoca' 116-LIS 4

Born to Coroca (113) and Pola (114), mentioned by Gouveia (1969). To Gelsenkirchen.

*M* 1969 January 9 – 1972 April 3  
'Tobias' (= 'Janota') 168-LIS 5  
Born to Coroca (113) and Pola (114) after a gestation of 14 months and 21 days. To Sao Leopoldo.

*F* 1974 May 2 – 1983 January 9 †  
'Vitoria' 211-LIS 6  
Born to Coroca (113) and Pola (114).

*M* 1977 May 26 – 1990 March 6 †  
'Corola' 286-LIS 7  
Born to Coroca (113) and Pola (114).

*F* 1990 March 8 – 1991 August 5  
'Shybula' 530-LIS 8  
Imported from South Africa, and in 1991 it was returned to that country to be released into Kruger National Park.

## Lodz, Poland

### *Miejski Ogród Zoologiczny*

*M* 1966 July 25 – 1985 July 1  
'Tytan' 148-LOD 1  
Captured in East Africa. It was two years old on arrival. It had a third horn which fell off on 22nd December 1974, and again on 5th May 1976 (zoo records). To Sao Leopoldo.

## London, UK

### *Zoological Society of London*

*M* 1868 September 11 – 1891 April 12 †  
'Theodore'  
Caught by Lorenz Cassanova on 12th February 1868 near Cassala in Upper Nubia, now in Eastern Sudan. Imported by Carl Hagenbeck. The Society paid £1000 for its purchase. Zukowsky (1965: 136, 138, fig. 67) discussed the animal and published a photograph after Anonymous (1896a: 22). Edwards (1996a: 123) published photographs taken by Major J. Fortuné Nott (ca. 1885), and by Lewis Medland (ca. 1890). Sclater (1876a, pl. XCIX) included a coloured plate by J. Wolf. It died of stomach cancer. See Figs. 114, 163.

*F* 1906 July 24 – 1911 December 14 †  
'Theodora' 547-LON 9

This animal was very young on arrival. It was captured in East Africa, as there is a photograph of it, taken in 1905 when it was still in Mombasa, Kenya (Edwards 1996a: 127, with another postcard from ca. 1910). It died of broncho-pneumonia (Pocock 1912).

*M* 1911 May 19 – 1924 July 20 †  
'Theodore' 548-LON 10

Imported by R.B. Woodman from Nairobi, Kenya. It was very savage. See Fig. 115.

*F* 1922 December 15 – 1938 December 20  
'Eliza' or 'Jane'

Captured near Arusha, Tanzania. It was sold to the dealers Ruhe and Fockelmann. The final destination is not recorded.

*F* 1928 July 9 – 1939 May 3  
'Kathleen'/'Kenya' 549-LON 11

Caught on Mount Kenya. A gift from G.L. Bailey. The animal was very small on arrival and still had to be fed with a bottle. When the rhinoceros house was being rebuilt, it was moved to Whipsnade (died December 1939). See Fig. 6.

*M* 1946 October 18 – 1946 December 10 †  
'Jimmy' 550-LON 12

This animal was ten months old on arrival.

*F* 1947 October 1 – 1964 March 22 †  
'Lorna' 551-LON 13

First exhibited in the antelope house, and on 13th July 1959 was moved to the cattle sheds. Died of mitral stenosis-bronchitis.

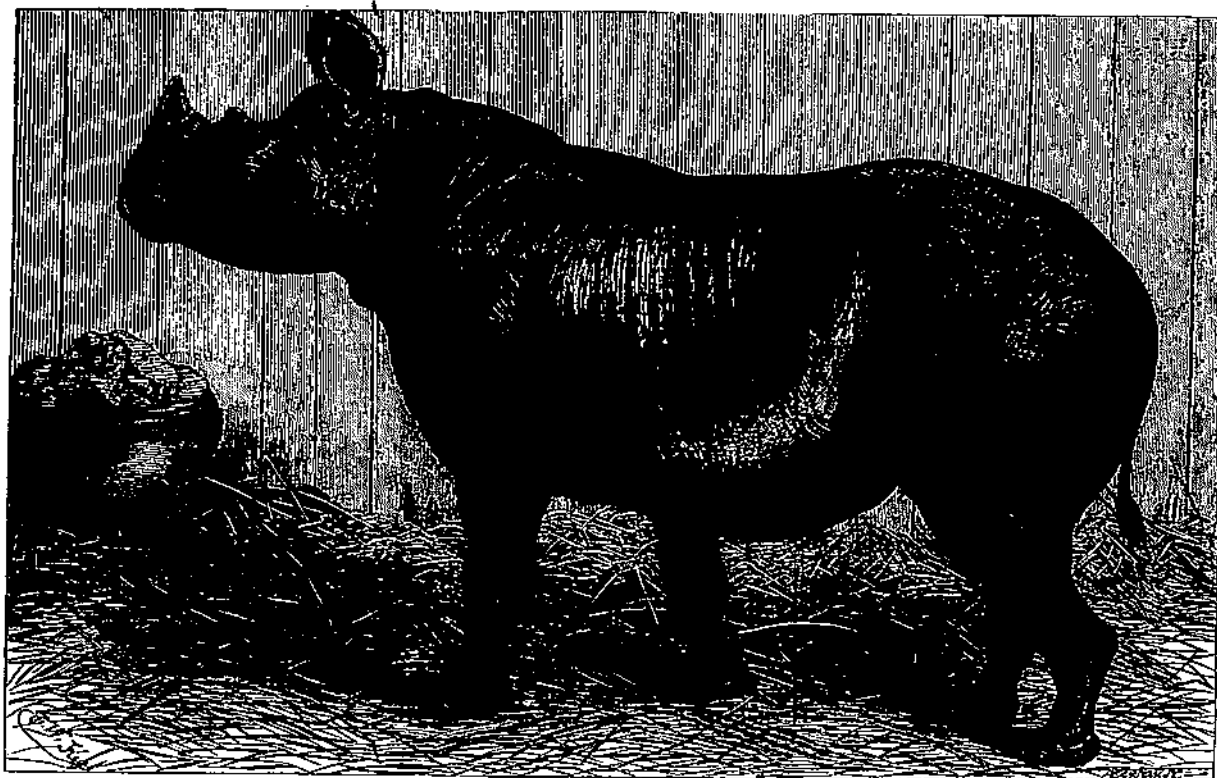
*M* 1966 July 15 – 1973 December 18 †  
'Paul' 016-LON 1

*F* 1966 July 15 – 1991 October 11  
'June' 017-LON 2  
To Port Lympne.

*F* 1969 November 26 – 1972 April 19  
'Luana' 190-LON 3  
Born to Paul (16) and June (17). To Dublin.

*F* 1972 November 15 – 1973 October 9  
'Joanna' 191-LON 4  
Born to Paul (16) and June (17). To Paignton.

*M* 1974 April 1 – 1975 June 24  
'Bwana Mkubwa' or 'Fred' 018-WHI 1  
From Whipsnade, and returned there. It was



TWO-HORNED RHINOCEROS.

Fig. 114. London's male 'Theodore' in the *Illustrated London News* of 1868.



Fig. 115. Male black rhinoceros shown from 1911-1924 in London, from a 1915 postcard.

shown again in London from 16th October 1978 to 14th May 1985.

F 1975 November 28 – 1977 July 15  
'Noelle' 210-LON 5  
Born to Bwana Mkubwa (18) and June (17). To Chester.

M 1978 March 22 – 1978 October 16  
022-HOL 1  
From Bristol. To Whipsnade.

M 1978 September 20 – 1980 December 3  
'Kes' 269-LON 6  
Born to Bwana Mkubwa (18) and June (17). To Winchester.

F 1982 May 22 – 1984 May 9  
'Esther' 312-LON 7  
Born to Bwana Mkubwa (18) and June (17). The animal was named after Esther Rantzen, who was making a documentary for the BBC. To Chester.

M 1987 November 15 – 1990 January 17  
'Jasper' 164-CHE 4  
From Chester. To Port Lympne.

F 1988 January 19 – 1989 March 3  
'Mama Kidogo' 019-WHI 2  
From Whipsnade. To Port Lympne.

F 1988 November 25 –  
'Rosie' 384-LON 8  
Born to Jasper (164) and June (17). It was raised by hand.

M 1990 January 17 – 1991 October 10  
'Basha' 245-BEK 3  
From Port Lympne and returned there.

M 1990 November 21 –  
'Jos' 391-DVU 20  
From Dvur Kralove.

## Los Angeles, CA, USA

### Los Angeles Zoo

F 1966 March 10 –  
'Twinkletoes' 076-LAX 1  
Imported from Kenya, when six months old.

M 1968 September 16 – 1979 March 3 †  
'Arthur' 151-LAX 2  
From Granby.

F 1970 March 20 – 1970 November 6  
152-LAX 3  
Born to Arthur (151) and Twinkletoes (76). To Columbus.

F 1971 August 27 – 1972 February 10  
'Kifaru' 206-LAX 4  
Born to Arthur (151) and Twinkletoes (76). To San Diego Wild Animal Park.

M 1975 June 23 – 1976 December 4  
'Saion' 209-LAX 5  
Born to Arthur (151) and Twinkletoes (76). To Osaka (via Ferndale).

M 1977 August 17 – 1979 June 26  
529-LAX 11  
Born to Arthur (151) and Twinkletoes (76). Traded to the International Animal Exchange in Ferndale, but the final destination is not known.

M 1979 October 27 –  
'Buster' 285-MEM 3  
From Memphis.

F 1979 October 27 –  
'Sweet Pea' 267-CVG 8  
From Columbus. See Fig. 116.

M 1982 December 4 – 1994 January 24 †  
'Gus' 333-LAX 6  
Imported from Zimbabwe, when eight years old.

F 1982 December 4 – 1993 November 29  
'Mabel' 334-LAX 7  
Imported from Zimbabwe, when it was five years old. To Glen Rose. See Fig. 102.

*F* 1983 April 21 –  
'Zoe'

336-LAX 8

Born to wild male and Mabel (334). See Fig. 102.

*F* 1985 August 25 – 1988 January 14

'Ashanti'

360-LAX 9

Born to Buster (285) and Sweet Pea (267). To Kansas City. See Fig. 116.

*M* 1986 June 10 – 1988 June 7

'Zakar'

381-LAX 10

Born to Buster (285) and Twinkletoes (76). To Oklahoma.

*F* 1987 January 13 – 1987 March 12

'Moonstone'

351-SFO 8

From San Francisco. It left that zoo in 1986, but did not stay in Kansas City, as recorded in the studbook. To Miami.

## Madrid, Spain

*Zoo de la Casa de Campo*

*F* 1956 – ?

Shipped to Madrid by Ruhe, Hannover, in May 1956 (Reynolds 1963: 109). Its arrival in Madrid is not known from other sources. The rhinoceros may have had a different destination.

## Magdeburg, Germany

*Zoologischer Garten*

In 1970, a new rhinoceros house was opened.

*M* 1967 August 29 – 1994 April 27

'Kibo'

009-HAJ 3

From Hannover. To Berlin Zoo.

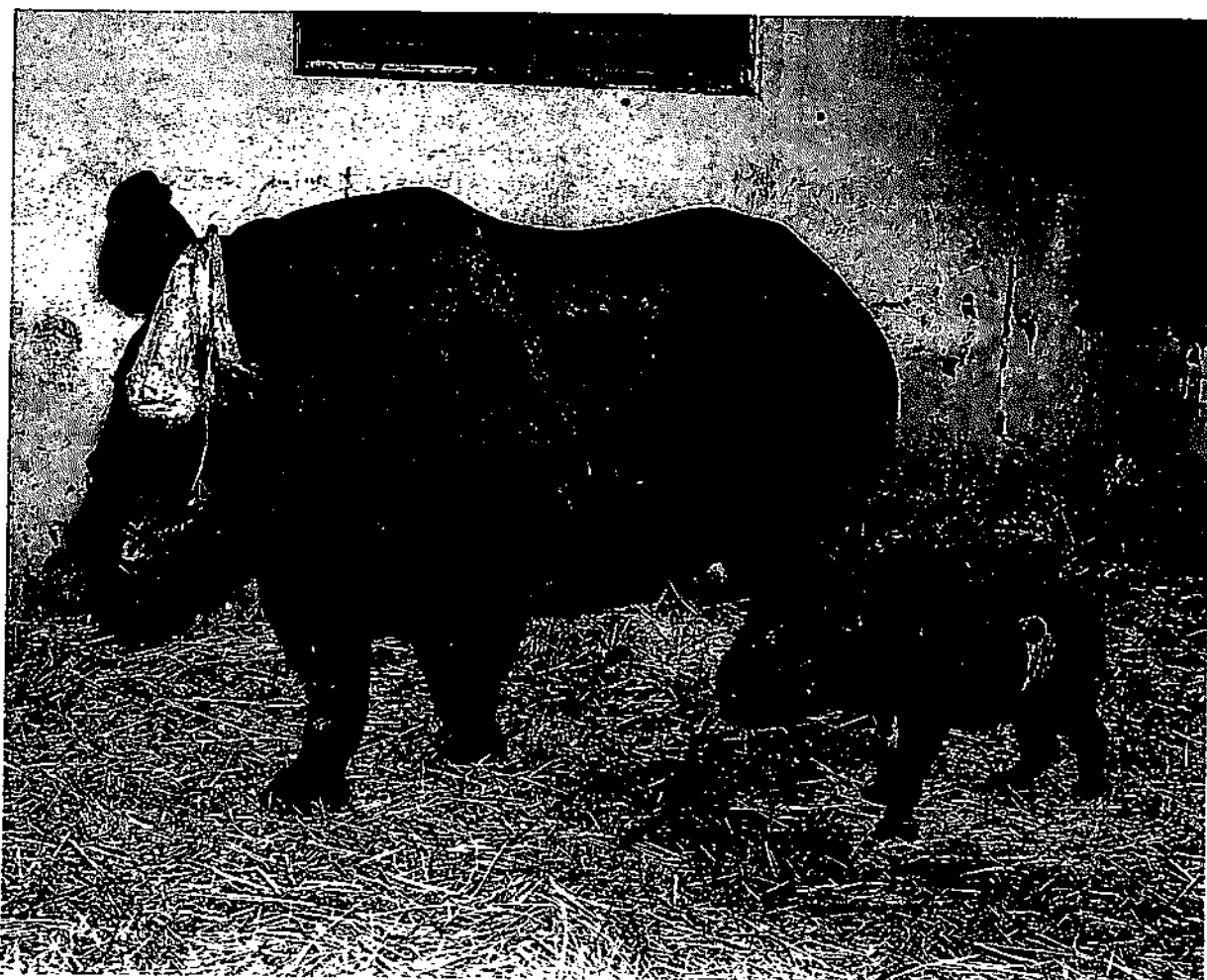


Fig. 116. Los Angeles: Mother 'Sweet Pea' with two-day-old calf 'Ashanti' on 27th August 1985.



*F* 1970 August 30 –  
'Kenia'

153-MAG 1

Imported from Kenya when about three years old. On 9th July 1985, the front horn broke at its base; it weighed 1.7 kg and was 32 cm long (Neuschulz and Puschmann 1986). In January 1986 the horn was again 20.5 cm long (Puschmann 1987).

*M* 1979 January 23 – 1992 October 2

'Mabu'

277-MAG 2

Born to Kibo (9) and Kenia (153). It developed a small third horn directly behind the posterior horn in its seventh year (see Fig. 117). It fell off regularly (on 29.1.1986, 31.10.1986 and 16.10.1987), as recorded by Neuschulz (1988). To Dvur Kralove.

*F* 1981 September 10 –

'Mana'

295-MAG 3

Born to Kibo (9) and Kenia (153). In September 1987, the anterior horn got stuck in the fence and it almost broke off; it had to be removed by operation (Puschmann and Schröpel 1988).

*M* 1992 October 1 – 1995 †

'Eli'

386-DVU 17

From Dvur Kralove.

## Maiduguri, Nigeria

### Kyarimi Park Zoo

*M* 1975 February 11 – 1977 January 14 †

'Kaigama'

228-MDG 1

Captured in Kenya.

*F* 1975 February 11 –

'Amina'

229-MDG 2

Captured in Kenya.

*F* 1976 August 7 –

'Hauwa'

230-MDG 3

Born to Kaigama (228) and Amina (229), recorded with a photograph by A.M. Morgan-Davies in *International Zoo News*, 24 (1), January/February 1977, p.45.

## Manchester, UK

### Belle Vue Zoological Gardens

*M* 1937 May – 1937 December †



Fig. 117. Black rhinoceros with small third horn at Zoo Magdeburg, 1988.

Imported from Kenya by H.R. Stanton. Died of gastroenteritis.

*M* 1937 May – 1940 February †

Imported from Kenya by H.R. Stanton. Died of diseased dorsal vertebrae.

*F* 1947 August – 1947 September †

Imported from Kenya by H.R. Stanton. Keeling (1983: 58) visited Belle Vue on 14th August 1947 and saw a very young black rhinoceros, which was housed together with a warthog. It was killed by the warthog the following month.

*M* 1953 June – 1957 July †

Imported from Tanzania by Seago.

*F* 1954 July – alive in 1960

Imported from Tanzania by Seago. The date of death is not known. The zoo closed in 1977 and the animal had probably expired earlier.

*F* 1964 August 13 – 1975 March †

'Maggie'

027-MAN 2

Imported from Kenya.

*M* 1966 July 15 – 1974 March †

'Barry'

026-MAN 1

Imported from Kenya.

## Manila, Philippines

### Zoological and Botanical Gardens

*M* 1959 August 13 – 1975 April 23 †

'Faro'

089-MNL 1

Imported from S.W. Africa [Namibia].

*F* 1959 August 13 – 1960 March 26 †  
Probably from Namibia with the preceding male. Died of tetanus.

### Melbourne, Australia

#### Zoological Board of Victoria

1914 Summer – 1915 May 19 †  
This date of arrival was recorded by Reynolds (1963: 104) following Melbourne Zoo reports of 1914. Its death was mentioned in the *Report of the Proceedings of the Zoological Society of Victoria* for 1916.

*M* 1950 March 1 – (?)  
'Peter' 509-SYD 15  
From Sydney. The death is not recorded.

*F* 1975 – 1977/1978 †  
'Squeaker' 102-SYD 4  
From Australia: Ashton's Animal Kingdom.

### Memphis, TN, USA

#### Overton Park Zoo

*F* 1958 August 4 – 1966 March 29 †  
'Lil'  
This animal came from Ringling-Barnum Circus, where it had lived since 1955.

*M* 1964 August 24 – 1967 June 22 †  
'Romeo' 065-MEM 1  
From Fresno.

*F* 1969 February 25 – 1979 June 10 †  
'Snoopy' 126-DEN 3  
From Denver.

*M* 1969 March 8 – 1969 July 29 †  
'Tiny' 109-PIT 4  
From Pittsburgh.

*F* 1971 June 8 – 1982 February 13  
'Oliveoil' 179-STL 5  
From St Louis. To San Diego Wild Animal Park.

*M* 1973 November 22 – 1979 June 20 †  
'Punion' 199-MEM 2  
Bought from the dealer Vivo Animales.

*M* 1978 November 7 – 1979 October 27  
'Buck' 285-MEM 3  
Born to Punion (199) and Snoopy (126). To Los Angeles.

### Mendoza, Argentina

#### Zoological Gardens

*M* 1949 July – (?)  
Imported by Peter Ryhiner from Kenya. It was quite tame. The transport to Mendoza was described by Ryhiner and Mannix (1959: 126). The stay in the zoo is not otherwise known.

### Mexico

#### Bell's Brothers Circus

*M* 1965 – 1968 (?)  
'Hatari'  
This animal was purchased from the A.I.G. Kelly & Miller Bros. Circus of the USA. The Bell's Brothers Circus was owned by Jorge, Ricardo and Rolando Bell. It was still present in 1968, thus establishing a circus life of 13 years (ten years in USA, three in Mexico), which is the longest of any black rhinoceros with a travelling circus in North America (information kindly sent to R.J. Reynolds by Dr. Manuel H. de la Rosa, Mexico City, in May 1968).

### Mexico City, Mexico

#### Alfonso L. Herrera Zoological Park

*M* 1953 – alive in 1963  
Imported by Ruhe. It spent some time in Hannover and left there on 7th November 1953.

*F* 1955 – 1959 †  
Imported by Ruhe. Killed by the male.

*F* 1960 – Alive in 1963  
Imported by Ruhe.

*M* 1971 –  
'Faruk II' 296-MEX 1  
It was seven years old on arrival.

*F* 1971 –  
'Susi' 297-MEX 2  
It was seven years old on arrival.

**Miami, FL, USA**

*Crandon Park Zoo (until 1981)*  
*Miami Metro Zoo (from 1981)*

*F* 1973 June 13 –  
'Cora' 202-MIA 2  
Imported from Kenya.

*M* 1974 April 20 – 1980 June 16 †  
'Studley' 201-MIA 1  
Imported from Kenya.

*M* 1978 December 7 – 1979 November 27  
'Amani' 272-MIA 3  
Born to Studley (201) and Cora (202). To Buenos Aires.

*F* 1983 January 21 –  
'Lulu' 255-BOS 2  
From Buffalo.

*M* 1983 November 10 –  
'Toshi' 259-HIR 3  
From Hiroshima.

*M* 1985 July 18 – 1988 September 6 †  
'Watu' 052-DTT 1  
From Detroit.

*M* 1986 March 11 – 1988 September 15  
'Makuu' 362-MIA 4  
Born to Toshi (259) and Cora (202). To Tyler.

*F* 1986 December 12 – 1989 February 3 †  
'Thika' 382-MIA 5  
Born to Toshi (259) and Lulu (255).

*F* 1987 March 15 –  
'Moonstone' 351-SFO 8  
From Los Angeles.

*M* 1988 March 10 –  
'Tatoo' 395-MIA 6  
Born to Watu (52) and Cora (202).

*F* 1988 July 7 – 1989 October 28 †  
'Rosy' 038-NAP 3  
From Atlanta.

*F* 1989 January 28 – 1989 February 8 †  
398-MIA 7  
Born to Toshi (259) and Lulu (255).

*M* 1990 November 10 – 1993 August 20  
'Tonka' 472-MIA 9  
Born to Toshi (259) and Cora (202). To Hitachi.

1991 July 25 – 1991 July 25 †  
441-MIA 8

Stillborn to Toshi (259) and Lulu (255). The studbook records a male under No. 441 and a female under No. 442 with the same dates and particulars.

*M* 1993 February 11 –  
'Tucker' 475-MIA 9  
Born to Toshi (259) and Cora (202).

*M* 1994 December 15 - 1994 December 15 †  
519-MIA 10  
Stillborn to Tatoo (395) and Moonstone (351).

**Milwaukee, WI, USA**

*Milwaukee County Zoological Park*

*M* 1943 July 8 – 1957 July 26 †  
From Chicago Brookfield as a gift of the Milwaukee Journal. Died of a stroke.

*M* 1989 June 27 – 1991 May 23  
'Zakar' 381-LAX 10  
From Oklahoma. To Columbia.

*M* 1989 July 18 –  
'Brewster' 404-MKE 1  
Imported from Zimbabwe.

*F* 1989 July 18 –  
'Barley' 405-MKE 2  
Imported from Zimbabwe.

*F* 1989 December 19 – 1991 June 6  
'Gemstone' 383-SFO 6  
From San Francisco. To Columbia.

*M* 1992 December 29 – 1994 November 27  
'Kwanzaa' 463-MKE 3  
Born to Brewster (404) and Barley (405). To Dubbo.

**Moscow, Russia***Moskovskii Zoologicheskii Park*

*F* 1954 July 4 – 1971 July 14 †  
 'Zamba' 105-MOW 1  
 Imported from East Africa. In early editions of the studbook, it is stated that this animal came from Prague, which seems to be incorrect. It died of acute intoxication.

**Munich, Germany***Tierpark Hellabrunn*

*M* 1955 November 3 – 1974 December  
 'Heinz' 130-MUC 1  
 Imported by Hagenbeck from Tanzania. To Sao Paulo.

*F* 1955 November 3 – 1974 December  
 'Kifaru' 131-MUC 2  
 Imported together with the preceding male from Tanzania. To Sao Paulo.

**Mwanza, Tanzania***Saanane Island Game Reserve Zoo*

This zoo was opened on 5th September 1964 by Mr. J.S. Malecela, Tanzania's representative at the United Nations. It was constructed on a 95-acre island in Lake Victoria, off the coast of Mwanza, Tanzania (Achard and McCulloch 1967).

*M* 1964 October 8 – 1967 September 20 †  
 'Michael' 082-MWA 1  
 Caught in the Tarime district, N. Tanzania, when it was 2.5 years old. Soon after, it became completely tame (Achard and McCulloch 1967: 238). Died of diarrhoea.

*F* 1964 October – 1966 February †  
 Mother of the baby born in 1965. It also suffered an eye disease in 1965 and became blind as a result. Died of intestinal problems (McCulloch *et al.* 1969: 141).

*May 1965 – 1965 July †*

Born to the 1964 female. The calf died, probably in July 1965, of corneal opacity, which also affected its parents (McCulloch *et al.* 1969: 141).

**Mysore, Karnataka, India***Sri Chamarajendra Zoological Gardens*

Krishne Gowda (1985, 1990) detailed the black rhino births in Mysore. He listed seven births (two of which died), but in his summary he said that there had been eight. In 1990, a young pair was donated to Baroda in exchange for a female Indian rhinoceros (Anonymous 1990). It is not clear which animals these would have been. I visited Mysore zoo in October 1993. At that time, I saw a pair of black rhinos, and a young animal of about two years, in two enclosures (see Figs. 118, 104). At first, the rhinos were kept in an enclosure measuring 60 × 30 feet, but later a large spacious enclosure of about five acres surrounded by a moat was added.

*M* 1956 January 17 – 1983 February 3 †  
 'Jacky' 086-MYS 1  
 Purchased from Albert Mearns (via Ruhe), when it was about six years old. In 1963, the animal was given a course of testoviron to make it sexually potent (Krishne Gowda 1985: 7).

*F* 1956 January 17 – 1986 July 8 †  
 'Mary' 087-MYS 2  
 Purchased from Albert Mearns (via Ruhe). It was about eight years old on arrival.

*M* 1966 August 26 – 1968 †  
 'Ganesh' 088-MYS 3  
 Born to Jacky (86) and Mary (87), reported by Miller (1967) and Krishne Gowda (1967). Later, Krishne Gowda (1990) added that the animal had died of pneumonia after about a year.

*M* 1972 October 1 – 1994 May 29 †  
 'Gunda' 223-MYS 4  
 Born to Jacky (86) and Mary (87). Died of tuberculosis (Valandikar and Raju 1996).

*F* 1975 October 29 –  
 'Prema' 224-MYS 5  
 Born to Jacky (86) and Mary (87).

*F* 1979 March 14 – 1992 September 11 †  
 'Gowri'  
 Born to Jacky (86) and Mary (87). Died due to tuberculosis, described by Valandikar and Raju (1996).



Fig. 118. Adult pair of black rhinos in Mysore, October 1993.

M 1983 May 3 –  
'Gajendra' 525-MYS 6  
Born to Jacky (86) and Mary (87).

F 1984 April 2 – 1984 April †  
'Laxmi'  
Born to Gunda (223) and Prema (224), but died shortly after.

M 1988 November 24 –  
'Mara'  
Born to Gunda (223) and Prema (224). The animal is not recorded in the sixth edition of the studbook (Göntenboth 1995) and may have been one of those transferred to Baroda (see introduction).

F 1991 November 8 –  
'Mahalaxmi' 526-MYS 7  
Born to Gunda (223) and Prema (224), as reported in *Zoos' Print*, 6 (12): 26 (December 1991) no date. See Fig. 104.

F 1994 July 10 –  
527-MYS 8  
Born to Gunda (223) and Prema (224).

#### Nagoya, Japan

##### Higashiyama Zoo

F 1954 May 29 – 1956 June 6 †

F 1956 October 4 – 1966 July 6  
To Fukuoka.

M 1964 November 20 – 1970 August 24 †

'Bobby' 098-NGO 2  
From Kobe.

F 1966 April 23 – 1968 July 8 (?)  
095-NGO 1

The disposition of this animal is not clear. Sotani (1974) listed its presence until 8th July 1968, but it is not known whether this date notifies a transfer or death. Klös and Frese (1993) stated that the rhinoceros went via Yokohama to Kyushu Island, where it died on 2nd February 1967.

F 1968 May 18 – 1991 January 30 †  
'Kinan' 236-NGO 3

F 1968 May 18 – 1992 January 28 †  
'Mell' 237-NGO 4

M 1972 June 27 – 1986 May 23 †  
'Monga' 238-NGO 5

F 1979 June 7 – 1982 August 16  
'Mack' 287-NGO 6  
Born to Monga (238) and Kinan (236). To Chengdu.

M 1980 February 13 – 1982 August 16  
'Botti' 288-NGO 7  
Born to Monga (238) and Mell (237). To Chengdu.

M 1984 March 7 – 1986 October 21  
'Masaru' 350-NGO 8  
Born to Monga (238) and Mell (237). To Taipei.

M 1986 June 13 – 1988 May 30  
'Kuro' 320-KAG 1  
From Kagoshima. To Yoshikawa.

M 1989 August 22 –  
'Saita' 352-OSA 6  
From Osaka.

#### Naples, Italy

##### Giardino Zoologico

M 1951 July 30 – 1952 March 18 †  
Imported by Pellegrino from Tanzania. Died of intestinal infection.

M 1951 July 30 – 1954 June 10

Imported by Pellegrino from Tanzania. To France: Bouglione's Cirque d'Hiver.

Goldwyn-Mayer studio, Hollywood (Reynolds 1963: 103).

*F* 1960 October 6 -

'Caterina'

037-NAP 2

Captured in Kenya.

New York, NY, USA

1. Bronx Zoo

*F* 1962 October 26 - 1968 November 5

'Rosella'

038-NAP 3

Captured in Kenya. It belonged to a Mr. Randall from Kenya. To Atlanta.

*F* 1906 May 25 - 1931 November 5 †

'Victoria'

Caught in July 1905 near Lake Victoria, 60 miles from Speke Gulf, Tanzania. After capture, "she was slung under a pole, and carried six days' journey, on men's shoulders, to the shore of the lake". Then she was transported by steamer to Kisumu, and by train to Mombasa, Kenya (Hornaday 1918: 94 with photograph; see Fig. 119).

*M* 1964 July 6 -

'Keddi'

036-NAP 1

Captured in Kenya. Klös and Frese (1993) add that the animal was born in May 1963 in 'Kenya Game Ward' but there is no further identification of the collection.

*M* 1906 December 21 - 1910 February 19 †

There is a picture of a black rhinoceros in the 'Decennial of the New York Zoological Park' (1909), showing this male or the preceding female. Another illustration of one of these two specimens was published by Jennison (1928, opp.p.145).

*F* 1971 October 20 - 1974 March 12

'Claire'

165-NAP 4

Born to Keddi (36) and Caterina (37), recorded by Florio (1972). To Rome.

*M* 1973 November 9 - 1974 March 15

'Ghibli'

203-ROM 1

Imported from Kenya. To Rome.

*F* 1932 January 25 - 1941 March 19 †

Imported by Hagenbeck from South Rhodesia [Zimbabwe]. The animal was seen in Hamburg from 5th January 1931 (Zukowsky 1965, fig. 41).

*F* 1975 December 14 - 1976 November 2

'Ciccina'

242-NAP 5

Born to Keddi (36) and Caterina (37). To Fasano.

*M* 1941 April 17 - 1954 March 15 †

From New York Central Park.

*F* 1978 July 25 - 1982 June 10

'Loredana'

270-NAP 6

Born to Keddi (36) and Caterina (37). To Frankfurt am Main.

*M* 1955 June 10 - 1976 December 20 †

'Little Joe'

045-NYC 1

Imported from Tanzania by Ruhe. This animal was exhibited in Pittsburgh from 25th March 1975 to 15th December 1976. It died a few days later.

*F* 1983 August 15 -

'Assunta'

345-NAP 7

Born to Keddi (36) and Caterina (37).

*M* 1994 June 8 -

'Werikhe'

473-SDZ 7

From San Diego.

## Nashua, NH, USA

John Benson's Animal Farm

## 2. Central Park Zoo

1879 March 18 - (?)

Benson was an agent for the animal dealer Hagenbeck in Germany.

*F* 1933 April/May - 1933 September/October  
The origin of this animal is not clarified. One black rhinoceros arrived in Boston harbour on 2nd June 1934 and was transferred to Benson's Farm, but the date seems to show that this was a different specimen. To the Metro-

The Report of the Director of the Central Park Menagerie for the year 1879, by William A. Conklin, stated that a black rhinoceros was placed on exhibition on March 18th. It could have been a temporary loan by W.W. Cole (who had owned a rhinoceros since 1878), and





Fig. 119. Female black rhinoceros in New York, from Hornaday's guidebook of 1918.

therefore be the same as the following specimen.

*F* 1886 December 14 – 1907 (?)

'Smiles'

From W.W. Cole Circus, USA. It was seen by Loisel in 1906, who added that the horns were crossed (Loisel 1912, III: 123). Reynolds (1970: 9) published a photograph taken in 1907.

*M* 1940 – 1941 April

This animal was deposited by Schulz and sent to the Bronx Zoo, New York in 1941.

### 3. Prospect Park, Brooklyn

This zoo was temporarily closed from 1988 to 1992.

*M* 1954 July 12 – 1988 July 13

'Rudy'

409-PRO 1

Imported by Ruhe. To Detroit.

*F* 1954 July 12 – 1956 January 12 †

Imported by Ruhe. Dates from Reynolds (1963: 111).

### Nuremberg, Germany

#### Tiergarten der Stadt Nürnberg

*F* 1929 August 27 – 1929 October

'Faru'

Caught on Mount Kilimanjaro, Tanzania and was two years old on arrival. It was on loan from Schulz, and stayed about six weeks at the zoo.

### Okahandja, Namibia

#### Zoopark

This park was operated by the dealer Schulz.

*F* 1963 – 1966 (?)

This specimen and the following female were mentioned in the 'Census of rare animals' in the *International Zoo Yearbook*, vol. 3 (1963). The record was still present in the *International Zoo Yearbook*, vol. 7 (1967) for information pertaining to 1966, but was absent from the next volume.

*F* 1963 – 1966 (?)

See previous entry.

### Oklahoma City, OK, USA

#### Oklahoma City Zoo

*M* 1963 June 28 – 1986 November 1 †

'Clyde'

054-OKC 1

From Detroit.

*F* 1963 June 28 – 1985 June 3

'Lotti'

055-OKC 2

From Cincinnati. To Detroit.

*F* 1968 May 1 – 1969 September 7

'Myrtle Mae'

138-OKC 3

Born to Clyde (54) and Lotti (55). To Tampa.

*F* 1972 May 2 – 1973 November 5

'Edith Ann'

192-OKC 4

Born to Clyde (54) and Lotti (55). To Wichita.

*M* 1973 – 1975 February 24

261-NDL 1

Imported from Kenya. To Delhi.

*F* 1973 – 1975 February 24

262-NDL 2

Imported from Kenya. To Delhi.

*F* 1974 January 15 – 1981 May 12 †

'Rosie'

063-MKC 2

From Wichita.

*M* 1975 May 10 – 1976 July 19

'Zulu'

208-OKC 5

Born to Clyde (54) and Lotti (55). To Cleveland.

- M* 1977 October 16 – 1979 August 6  
'Little Foose' 258-OKC 6  
Born to Clyde (54) and Lotti (55). To Havana  
(through Ruhe, Gelsenkirchen).
- M* 1982 March 27 – 1982 April 14 †  
319-OKC 7  
Born to Clyde (54) and Lotti (55).
- F* 1985 June 6 – 1988 August 2  
'Bibi' 053-DTT 2  
From Detroit. To Wichita.
- M* 1988 June 9 – 1989 June 27  
'Zakar' 381-LAX 10  
From Los Angeles. To Milwaukee.
- F* 1989 February 2 – 1991 June 28  
'Jeri' 330-NDL 4  
From Delhi. To St Louis.
- M* 1989 April 20 – 1989 August 18 †  
'Johnny' 056-CVG 1  
From Cincinnati.
- F* 1991 June 26 – 1993 August 21 †  
'Olive' 121-STL 2  
From St Louis.
- M* 1993 August 11 –  
'Werikhe' 459-STL 12  
From St Louis.
- Osaka, Japan**
- Tennoji Zoo
- M* 1955 May 25 – 1961 October 20 †  
'Taro' 090-OSA 1  
Died of tuberculosis (Takagi *et al.* 1964).
- F* 1960 July 25 – 1961 January 3 †  
Died of gastritis and enteritis.
- F* 1961 July 4 – 1965 August 6  
'Hanako' 091-OSA 2  
To Yokohama.
- F* 1965 April 23 – 1977 April 6  
'Barbara' 185-OSA 4  
Imported from S.W. Africa [Namibia]. To Hi-  
tachi.
- M* 1965 August 14 – 1974 February 27 †  
'Saitaro' 184-OSA 3  
Imported from S.W. Africa.
- F* 1972 February 1 –  
'Satchan' 183-OSA 5  
Born to Saitaro (184) and Barbara (185).
- M* 1976 December 14 – 1984 July 14 †  
'Saion' 209-LAX 5  
From Los Angeles.
- M* 1983 July 21 – 1989 August 22  
'Saita' 352-OSA 6  
Born to 209 and Barbara (185). To Nagoya.
- M* 1989 September 18 –  
'Thomy' 346-HIR 6  
From Hiroshima.
- F* 1994 April 20 –  
'Saion' 538-OSA 7  
Born to Thomy (346) and Satchan (183).
- Osijek, Croatia**
- Zoological Gardens
- F* 1972 – 1972 December 31 †  
'Eva' 156-ZAG 3  
From Zagreb.
- Paignton, UK**
- Zoological and Botanical Gardens
- M* 1973 March 27 – 1981 June 30  
'Jaspa' 164-CHE 4  
From Chester and returned to that zoo.
- F* 1973 October 9 – 1974 January 14 †  
'Joanna' 191-LON 4  
From London.
- Paris, France**
1. Jardin des Plantes
- M* 1880 June 22 – 1892 February 24 †  
Imported by the German dealer Reiches from  
Nubia, when it was 1.5 years old. Sclater (1896:  
327) mentioned the presence of this animal in  
1891 and said that it had been received about  
ten years earlier.

**2. Parc Zoologique, Vincennes**

*M* 1933 May 5 – 1944 April 10 †

Dates recorded by Marvin Jones. The zoo has no further information.

*M* 1952 July 11 – 1961 September 11 †  
'François'

Imported from Kenya by Carr Hartley. Illustrated in Mohr (1957, fig.7).

*F* 1959 October 6 – 1974 November 21 †  
'Judy' 030-VIN 1

Imported from Kenya.

**Pawtucket, RI, USA**

**Slater-Memorial Park Zoo**

*M* 1958 May – 1958 December 19 †

The animal was on loan from the Ringling Bros., Barnum & Bailey Circus.

**Perth, Western Australia**

**Zoological Gardens**

*F* 1951 May 21 – 1981 September 28  
'Dyna' 096-PER 1

According to Reynolds (1963: 104), this animal would have been received in February 1950. Klös and Frese (1993) list it as a specimen of *Diceros bicornis minor*, assuming a Southern African origin. To Sydney.

**Philadelphia, PA, USA**

**Zoological Gardens**

*F* 1912 September 19 – 1917 March 28 †  
Imported by Hagenbeck from Tanzania. On arrival it was 1.5 years old and weighed 760 lbs.

*M* 1948 May 11 – 1972 November 1 †  
'Kifaru' 112-PHL 1

Imported from Kenya as a gift from Frank Palumbo. To Wichita, but it died on the way.

*F* 1948 May 11 – 1966 May 11 †  
'Kenya'

Imported from Kenya as a gift from Frank Palumbo.

**Pittsburgh, PA, USA**

**Zoological Gardens**

*M* 1943 November 5 – 1962 †  
'Georgie-Joe' 556-CHI 13  
From Chicago Brookfield. It died of pneumonia.

*M* 1954 May 23 – 1974 August 17 †  
'Faru I' 048-PIT 1  
Imported by Hagenbeck, when 2.5 years old.

*F* 1954 May 23 – 1968 November 26 †  
'Tina' 049-PIT 2  
Imported by Hagenbeck at the age of three years.

*M* 1960 October 23 – 1961 September 10  
'Faru I' 069-JAX 1  
Born to Faru (48) and Tina (49), gestation 463 days, birth weight 22 kg (Hays 1967). To Jacksonville.

*M* 1963 April 14 – 1964 June 18  
'Faru II' 064-DLH 1  
Born to Faru (48) and Tina (49), gestation 454 days (Hays 1967, R.J. Reynolds in *International Zoo News*, 10: 95, 1963). To Duluth.

*M* 1965 October 4 – 1967 December 17  
'Faru III' 050-PIT 3  
Born to Faru (48) and Tina (49), mentioned by R.J. Reynolds (*International Zoo News*, 12: 219, 1965). To Atlanta.

*M* 1968 March 8 – 1969 March 7  
'Faru IV' 109-PIT 4  
Born to Faru (48) and Tina (49). To Memphis.

*M* 1975 March 25 – 1976 December 15  
'Little Joe' 045-NYC 1  
From New York Bronx and later returned there.

**Portland, WA, USA**

**Metro Washington Park Zoo**

*M* 1988 June 27 –  
'Pete' 376-DEN 10  
From Denver.

- F 1990 March 15 -**  
**'Miadi'** 396-CHI 8  
 From Chicago Brookfield.
- Port Lympe, UK**
- Zoo Park**
- M 1980 - 1991 December 30 †**  
**'Baringo'** 142-DUB 3  
 From Bekesbourne.
- M 1980 - 1993 March 7 †**  
**'Basha'** 245-BEK 3  
 From Bekesbourne. Exhibited in London from 17th January 1990 to 10th October 1991.
- F 1980 -**  
**'Naivasha'** 194-BEK 1  
 From Bekesbourne.
- F 1980 -**  
**'Rukwa'** 195-BEK 2  
 From Bekesbourne.
- F 1980 May 18 - 1980 May 18 †**  
 306-HYT 1  
 Stillborn to Ringo (142) and Rukwa (195).
- M 1983 October 3 -**  
**'Kingo'** 341-HYT 2  
 Born to Ringo (142) and Rukwa (195).
- F 1983 November 11 -**  
**'Arusha'** 342-HYT 3  
 Born to Ringo (142) and Naivasha (194).
- M 1988 June 7 - 1991 April 19 †**  
**'Bwana Mkubwa'** 018-WHI 3  
 From Whipsnade.
- F 1989 March 8 - 1995 March 3 †**  
**'Mama Kidogo'** 019-WHI 2  
 From London.
- F 1989 October 30 -**  
**'Nakuru'** 408-HYT 4  
 Born to Bwana Mkubwa (18) and Rukwa (195).
- M 1990 January 1 - 1990 Feb 22 †**  
**'Magadi'** 425-HYT 5  
 Born to Bwana Mkubwa (18) and Naivasha (194). The calf was killed by its mother, who tossed it on her horns (*Daily Express*, 28th February 1990).
- M 1990 January 17 -**  
**'Jasper'** 164-CHE 4  
 From London.
- M 1990 October 18 - 1993 October 22**  
**'Kati Kati'** 453-HYT 8  
 Born to Bwana Mkubwa (18) and Mama Kidogo (19). A photograph can be found in *International Zoo News*, 39 (1): 36, Jan. 1992. To Whipsnade.
- F 1991 October 10 - 1991 December 28 †**  
**'June'** 017-LON 2  
 From London.
- M 1991 November 20 -**  
**'Bwana Kidogo'** 448-HYT 6  
 Born to Bwana Mkubwa (18) and Naivasha (194).
- M 1991 December 28 - 1991 December 28 †**  
 449-HYT 7  
 Stillborn to Basha (245) and June (17).
- M 1992 December 3 -**  
**'Baringo II'** 483-HYT 9  
 Born to Baringo (142) and Rukwa (195).
- M 1994 October 14 -**  
**'Parky'** 318-WHI 6  
 From Chester.
- M 1994 October 28 -**  
**'Gareth-Edwards'** 534-HYT 10  
 Caught in Natal.
- Porto Alegre, Brazil**
- Jardim Zoologico**
- F 1962 April - 1962 May**  
 This animal was on temporary loan from Rio de Janeiro zoo, and was returned there.
- Potgietersrus, South Africa**
- Breeding Centre of Pretoria Zoo in Northern Transvaal**
- M 1983 May 3 -**  
 339-PRY 6  
 Caught in Addo National Park. It was two years old on arrival.

*F* 1990 August 9 -  
'Ponono' 429-PRY 8  
Eight years old on arrival.

*M* 1991 February 3 -  
'Kojak' 476-PRY 9  
Captured in Umfolozi, South Africa.

*M* 1993 August 1 -  
491-PRY 10  
Born to Kojak (476) and Ponono (429).

### Prague, Czech Republic

#### Zoologická Zahrada

*M* 1932 October - 1937 †

*M* 1954 October 24 - 1969 September 24 †  
'Max' 042-PRG 1  
Imported by Behrend. Died of tuberculosis.

*F* 1958 October 21 - 1972 †  
'Isis' 043-PRG 2  
Imported by Ruhe from a place near Mount Kilimanjaro, Tanzania. To Rio de Janeiro, but died on the way.

### Pretoria, South Africa

#### National Zoological Gardens

*F* 1914 December 31 - 1942 November 15 †  
'Maggie' 536-PRY 11  
Captured in Gatooma, Southern Rhodesia [Zimbabwe] (Bigalke 1946) and bought for £125.

*M* 1944 June 16 - 1955 May 13 †  
'Kuzi' 537-PRY 12  
Caught in Mkuzi Game Reserve, Natal. On arrival at the zoo it was about three months old. Died of tuberculosis.

*F* 1953 November 26 - 1966 July 12 †  
'Mathilda'  
Purchased privately from someone living near Johannesburg, who had probably obtained the animal from Natal. It was about three years old on arrival. Died of injuries inflicted by a male in the same enclosure.

*M* 1963 March 15 - 1979 February 10 †  
'Sondag' 083-PRY 1  
Caught by Walther Schulz, between the Huab

and Unjab Rivers, N.W. Namibia (Zukowsky 1965, fig. 23). It was about three years old on arrival.

*M* 1963 April 2 - 1963 April 29 †  
This was a newborn baby rhino found in the Kariba Dam area of the present Zambia.

*F* 1967 April 11 - 1972 October 12 †  
'Sally' 084-PRY 2  
Caught in Zimbabwe, when about five years old. Died of liver damage.

*M* 1969 November 12 - 1972 September 2  
'Rudolph' 136-PRY 3  
Born to Sondag (83) and Sally (84). To Johannesburg.

*F* 1976 September 5 - 1983 May 4  
'Eva' 249-PRY 4  
Imported from Kenya. In 1983 it was released into Addo National Park (see South Africa).

*M* 1983 May 3 - 1985 December 20 †  
338-PRY 5  
Caught in Addo National Park, when about two years old. Died of haemolytic anaemia.

*F* 1983 May 3 - 1983 July 28 †  
340-PRY 7  
It was caught in Addo National Park, when about 2 years old. Died of pneumonia.

### Pusan, South Korea

#### Unidentified Collection

*F* 1966 July  
In that month, Tokyo Ueno Zoo sold a black rhinoceros to Pusan. The collection was not identified and no further information is available.

### Pyongyang, North Korea

#### Zoological Park

*M* 1985 August 23 -  
370-PYO 3  
Imported from Zimbabwe.

*M* 1985 August 23 -  
371-PYO 4  
Imported from Zimbabwe.

*F* 1985 August 23 -

368-PYO 1

Imported from Zimbabwe.

*F* 1985 August 23 -

369-PYO 2

Imported from Zimbabwe.

### Ramat-Gan, Israel

#### Zoological Center, Tel Aviv

Tel Aviv zoo was transferred to a new park in Ramat-Gan in 1981. All the animals were transferred from the one to the other at that time.

*M* 1966 August 27 - 1989 December 24

'Momo'

128-TLV 1

Imported from Kenya when it was 2.5 years old. To Sandton. See Fig. 162.

*F* 1966 August 27 - 1983 April 4 †

129-TLV 2

Imported from Kenya when it was 2.5 years old. It died of a bladder stone weighing about 2.5 kg. The horns, one leg and the skull are part of the zoo's collection (see *Annual Report* 1983: 13-14).

### Rapperswil, Switzerland

#### Circus Knie

*M* 1949 - ?

The presence of the animal in the circus is not confirmed. It was on loan to Basel Zoo from 25th November 1954 to 1st March 1955.

### Rio de Janeiro, Brazil

#### Jardim Zoologico

The zoo does not have any records on the keeping of black rhinos.

*M* 1949 July 26 - 1958 April 11 †

'Britador'

Imported by Ryhiner from Kenya (Ryhiner and Mannix 1959: 125).

*F* 1949 July 26 - 1965 January 29 †

'Teresinha'

Imported by Ryhiner from Kenya, with the preceding male.

*F* 1954 February 14 - 1962 November 27 †  
'Cacareco'

Born to Britador and Teresinha. It was exhibited in Sao Paulo in 1958-1959 and in Porto Alegre in 1962. It was very popular in Brazil (see entry for Sao Paulo).

*M* 1956 March 19 - 1956 September 26 †

'Quinzinho'

Born to Britador and Teresinha.

*F* 1958 January 20 - 1961 February 26 †

'Pata-Choca'

Born to Britador and Teresinha.

### Rome, Italy

#### Giardino Zoologico

*M* 1910 - 1915 January †

'Moritz'

Caught for Hagenbeck in 1907 near Shirati, on the shores of Lake Victoria in N.W. Tanzania (Zukowsky 1965, fig. 47).

*M* 1930/32 - 1942/43 †

Dates in Reynolds (1963: 108, according to Director Bronzini).

*F* 1930/32 - 1942/43 †

*F* 1974 March 12 -

'Claire'

165-NAP 4

From Naples.

*M* 1974 March 15 - 1983 February 12 †

'Ghibli'

203-ROM 1

From Naples.

*M* 1980 February 3 - 1984 August 5 †

'Rino'

289-ROM 2

Born to Ghibli (203) and Claire (165).

### Rotterdam, The Netherlands

#### Zoo Blijdorp

The registration documents of animals up to 1945 were destroyed, and are fragmentary until about 1975.

*M* 1931 May 6 - 1943 May 3 †

'Kali'

Imported by Schulz from Arusha, Tanzania.



During World War II, its home was bombed, and so it had to live in a cage for some months (Ruiter 1957 with photograph).

*F* 1950 May 10 – 1962 July 5

It was 15 months old on arrival. To Arnhem.

*M* 1955 July 28 – 1962 April 2 †

'Peter'

It was four years old on arrival.

*F* 1960 August 29 – 1962 May 11

'Laura' 029-DUB 2

Born to Peter and female from 1950. To Dublin.

## San Antonio, TX, USA

### Zoological Gardens

*F* 1953 – alive in 1962

Imported by Meems Bros. & Ward. It was alive in 1962 (Reynolds 1963: 112).

*M* 1956 – 1977 July 9 †

'Tony' 135-STA 1

Imported by H.R. Stanton from Kenya. The year of arrival is taken from the studbook, but Reynolds (1963: 112) reported it as being 1957.

*F* 1973 June 9 – 1976 May 12 †

'Kifa' 214-STA 2

Imported by International Animal Exchange, Ferndale, possibly from Ethiopia.

*M* 1976 May 3 – 1976 May 3 †

Stillborn to Tony (135) and Kifa (214).

*F* 1976 December 28 –

'Luana' 190-LON 3

From Dublin.

*M* 1978 April 22 –

'Lord' 169-DVU 1

From Jacksonville.

*M* 1979 March 29 – 1979 March 29 †

300-STA 4

Aborted calf to Luana (190).

*F* 1981 May 21 – 1982 July 21

'Marsha' 294-STA 3

Born to Lord (169) and Luana (190). To Chicago Brookfield.

*F* 1982 December 11 – 1983 January

'Shy-Anne' 331-STA 5

Born to Lord (169) and Luana (190). To San Francisco.

*F* 1986 February 1 – 1987 July 21

'Crista' 359-STA 6

Born to Lord (169) and Luana (190). To Tyler.

*F* 1987 July 17 –

'Sababu' 364-CVG 15

From Cincinnati.

## San Diego, CA, USA

### 1. San Diego Zoo

Dolan *et al.* (1990) listed the rhinoceroses from this zoo. See Fig. 120.

*F* 1952 August 30 – 1985 February 7 †

'Sally' 078-SAN 2

Born in 1950 and caught near Kibwezi, Kenya, after which it was kept for some months on the estate of Hugh and Jane Stanton near Rumuruti, Kenya (Anonymous 1952). A photograph taken in 1964 was published by Reynolds (1968, fig. 11), and others appeared in *Zoonooz*, October 1953, pp.1-3.

*M* 1953 July 6 – 1968 August 14 †

'Barney' 077-SAN 1

Imported by Hagenbeck from East Africa. It was donated by H.A. Astlett.

*M* 1969 May 25 – 1980 June 29 †

'Lenny' 146-SAN 3

Imported from Kenya by John Seago.

*F* 1973 November 27 – 1974 February 5 †

'Kifaru' 206-LAX 4

From San Diego Wild Animal Park.

*M* 1981 March 11 – 1986 October 22

'Cornelius' 292-GRA 3

From Granby. The animal was sometimes shown in San Diego and sometimes at the Wild Animal Park. It was in the town from 11th March 1981 to 25th May 1983 and again from 11th April 1985 to 22nd October 1986. Since that time, it has been at the Wild Animal Park.

F 1982 May 19 - 1989 May 2  
'Mulenda' 188-SAN 4  
From San Diego Wild Animal Park. To Columbus.

M 1983 January 11 - 1994 September 20 †  
'Dillon' 110-WAS 3  
From San Diego Wild Animal Park.

M 1987 December 5 -  
'Gundwane' 390-SAN 5  
It was imported from South Africa.

F 1988 October 5 -  
'Edith Ann' 192-OKC 4  
From Wichita.

F 1989 July 18 -  
'Chirundu' 392-SAN 6  
Imported from Zimbabwe, aged three years on arrival.

M 1990 January 1 - 1990 June 17  
'Mashaki' 377-SDW 2  
From San Diego Wild Animal Park. To Lansing.

M 1992 November 15 - 1994 June 8  
'Werikhe' 473-SDZ 7  
Born to Dillon (110) and Edith Ann (192). To New York Bronx.

M 1993 August 12 - 1994 November 29  
'Tbala' 485-SDZ 7  
Born to Gundwane (390) and Chirundu (392). To Dubbo.

## 2. San Diego Wild Animal Park

This is a park with large enclosures, maintained by the San Diego Zoological Society.

M 1970 April 8 - 1983 January 11  
'Dillon' 110-WAS 3  
From Washington. To San Diego.

F 1972 February 10 - 1973 November 27  
'Kifaru' 206-LAX 4  
From Los Angeles. To San Diego (Dolan *et al.* 1990: 105).

F 1972 September 30 - 1982 May 19  
'Mulenda' 188-SAN 4  
Imported from Kenya by International Animal



Fig. 120. Black rhinoceros at San Diego Zoo, 1973.

Exchange. Dolan *et al.* (1990, fig. 8) published a photograph of it. To San Diego.

*F* 1976 October 15 – 1991 June 13 †  
'Nanyuki' 239-SDW 1  
Born to Dillon (110) and Mulenda (188). Photograph in Dolan *et al.* (1990, fig. 8).

*M* 1981 September 28 – 1994 November 11  
'Mwaniki' 302-CVG 11  
From Cincinnati. To Dubbo.

*F* 1982 February 18 – 1982 May 28 †  
'Olive Oyl' 179-STL 5  
From Memphis.

*M* 1983 May 25 –  
'Cornelius' 292-GRA 3  
From San Diego and was returned to that zoo between 11th April 1985 and 22nd October 1986, after which it again lived at the Wild Animal Park.

*F* 1983 June 25 – 1984 March 21 †  
'Stella-Teca' 104-HAJ 4  
From Budapest.

*F* 1986 November 10 –  
'Judy' 233-CHI 3  
From Chicago Brookfield.

*M* 1987 July 12 – 1990 January 5  
'Mashaki' 377-SDW 2  
Born to Mwaniki (302) and Nanyuki (239), reported by Hanscom (1987). To San Diego.

*M* 1988 September 12 – 1989 October 5  
'Jioni' 389-SDW 3  
Born to Cornelius (292) and Judy (233). To Columbus.

*M* 1990 February 25 – 1994 May 17  
'Nakili' 427-SDW 4  
Born to Cornelius (292) and Nanyuki (239). To Chicago Brookfield.

*M* 1990 November 29 – 1994 May 18  
'Jimma' 435-SDW 5  
Born to Cornelius (292) and Judy (233). To Lansing.

*M* 1992 December 1 – 1992 December 1 †  
474-SDW 7  
Stillborn to Cornelius (292) and Judy (233).

*F* 1994 December 11 –  
'Jeri' 330-NDL 4  
From St Louis.

### Sandton, South Africa

The name of this Johannesburg suburb probably refers to a dealer. In Göltenboth (1995: 25) listed as 'Broederstroom Glen African Farm/Brooker'.

*M* 1990 January 7 –  
128-TLV 1  
From Ramat-Gan.

*F* 1991 January 9 –  
242-NAP 5  
From Sao Leopoldo.

### San Francisco, CA, USA

#### Zoological Gardens

*M* 1956 November 22 – 1991 November 7 †  
'Stonewall' 074-SFO 1

*F* 1967 January 20 – 1973 March 3 †  
'Stella' 075-SFO 2

*M* 1972 January 1 – 1973 September 8  
'Rhinstone' 161-SFO 3  
Born to Stonewall (74) and Stella (75). To Denver.

*F* 1974 April 16 –  
'Elly' 213-SFO 4  
Caught in Marsabit, Kenya, when it was three years old.

*M* 1976 February 13 – 1976 February 25 †  
477-SFO 13  
Born to Stonewall (74) and Elly (213).

*M* 1977 November 2 – 1978 August 17  
'Livesey' 250-SFO 6  
Born to Stonewall (74) and Elly (213). To Colombo.

*M* 1979 December 8 – 1981 May 4  
'Stonebreaker' 281-SFO 5  
Born to Stonewall (74) and Elly (213). To Detroit.

*M* 1981 October 18 – 1982 June 11  
 'Johnstone' 308-SFO 7  
 Born to Stonewall (74) and Elly (213). To Chicago Lincoln.

*F* 1983 January – 1984 July 15  
 'Shy-Anne' 331-STA 5  
 From San Antonio. To Kansas City.

*M* 1983 October 3 – 1984 November 19  
 'Kurobe' 337-SPO 7  
 Born to Stonewall (74) and Elly (213). To Kansas City.

*F* 1985 June 24 – 1986  
 'Moonstone' 351-SFO 8  
 Born to Stonewall (74) and Elly (213). To Los Angeles, where it arrived in 1987.

*F* 1988 July 2 – 1989 December 19  
 'Gemstone' 383-SFO 9  
 Born to Stonewall (74) and Elly (213). To Milwaukee.

*F* 1990 January 6 – 1990 November 23  
 'Rosetta Stone' 426-SFO 11  
 Born to Stonewall (74) and Elly (213). To Atlanta.

*M* 1991 July 30 –  
 'Hailstone' 443-SFO 12  
 Born to Stonewall (74) and Elly (213).

*M* 1994 April 13 –  
 'Gene' 377-SDW 7  
 From Lansing.

### Santillana, USA

#### McAllen's

A collection recorded in this name is mentioned in Klös and Frese (1993) and Göltenboth (1995).

*M* 1992 April 21 –  
 'Binga' 465-STR 2  
 Imported from Zimbabwe, when one year old.

*F* 1992 April 21 – 1996 February 9 †  
 'Kasikiri' 464-STR 1  
 Imported from Zimbabwe, when one year old.

### Santo Domingo, Dominican Republic

#### Parque Zoologico y Botanico

This zoo closed in 1975, and the records are no longer available. Reynolds (1963: 105) reported the arrival of a pair of rhinos in 1961. It is possible that a male 'Jake' from Kansas City arrived here in 1961 or 1962, but no details are known.

*M* 1960 April – ? 1961  
 Imported by Heini Demmer together with the following female.

*F* 1960 April – alive in 1963

### Sao Leopoldo, Brazil

#### Parque Zoologico do Rio Grande do Sul

*M* 1972 April 3 – 1979 April 10 †  
 'Tobias' 168-LIS 5  
 From Lisbon.

*F* 1978 May 2 – 1991 January 9  
 'Ciccio' 242-NAP 5  
 From Fasano. To Sandton.

*M* 1985 July 1 – 1986 May 29 †  
 'Tytan' 148-LOD 1  
 From Lodz. Died of cancer.

### Sao Paulo, Brazil

#### Fundacao Parque Zoologico

*F* 1958 – 1959 Autumn

#### 'Cacareco'

Exhibited as a temporary loan from Rio de Janeiro on the occasion of the inauguration of Sao Paulo Zoo. "People in Sao Paulo at that time were already fed up with politicians, and at the election for representatives to the municipality, Cacareco was the most voted 'candidate' – 300.000 votes! We assumed that an animal would be better than any politician. Today we are absolutely sure of that" (Faical Simon, General Curator, Sao Paulo, 26.11.1993).

*M* 1967 August 8 – 1971 October 20 †  
 'Calhambeco' 115-LIS 3  
 From Lisbon.

*M* 1974 December – 1975 May 27 †  
'Heinz' 130-MUC 1  
From Munich.

*F* 1974 December – 1975 July 19 †  
'Kifaru' 131-MUC 2  
From Munich.

## Sapporo, Japan

### Maruyama Zoo

*M* 1955 – ?  
Probably arrived in 1955 (Sotani 1974: 46). It was alive in 1963 (Reynolds 1963: 108), but was absent in 1968 (K. Kawata, in litt.).

## Seoul, South Korea

### Grand Park Zoo

*F* 1983 November 1 – 1983 December 10 †  
'Mimi' 344-GRA 6  
From Granby.

*M* 1984 April 25 –  
'Nepo' 266-WAS 5  
From Washington.

## Somaliland

### Potocki's Expedition

1896

Count Jozef Potocki caught a baby black rhinoceros during a hunting trip in Somaliland. He tried to transport it to Warsaw, Poland, but it died on the journey. The hide was mounted, but the specimen was destroyed by fire in 1915 (Joseph Potocki in Hopwood 1939: 455).

## South Africa

### Addo National Park

A group of black rhinoceroses captured in the Kiboko area of South-East Kenya was relocated to Addo in 1961 and 1962. Hall-Martin and Penzhorn (1977) described the fate of these animals and their offspring. On 20th March 1961, a male and a female were released, the

male died on 4th February 1972, while the female was still alive in 1977. On 22nd January 1962, a second group consisting of two males and three females was relocated; 1/2 died in 1962, 0/1 in 1970 and 1/0 in 1977. Up to 1977, these animals had produced 12 calves (five males, seven females), three of which died before that year.

In 1984, Hall-Martin (1984) again reviewed the situation and stated that, at that time, there were still 14 black rhinos (five males and nine females) present.

The studbook for the black rhinoceros (Klõs and Frese 1993) still lists one female [249-PRY 4], which was released in Addo on 4th May 1983, as coming from Pretoria Zoo.

## Southampton, UK

### Zoological Gardens

*M* 1964 – 1965 September  
'Roger'  
From Tanzania, when it was about 3.5 years old. It lived in an enclosure with a goat. It was sold, but its destination was not confirmed.

*F* 1970 – 1973 March 21  
'Thelma' 147-SOU 1  
Imported from East Africa. To Bristol.

## Spain

### Collection of Salvadore Dali

A pair of black rhinoceroses may have been kept there before September 1961 (Reynolds 1963: 110).

## St Félicien, Québec, Canada

### Zoo Sauvage

*M* 1978 July 22 – 1982 October 27 †  
'Macho' 243-TAM 4  
From Tampa. It died of pneumonia.

*F* 1978 July 22 – 1983 February 18 †  
'Francis' 226-TAM 3  
From Tampa. It died of pneumonia.

**St Louis, MO, USA***Saint Louis Zoo*

*M* 1929 March/April – 1929 December 27 †  
Imported by Ruhe. Zukowsky (1965: 144) assumed that this was one of four specimens imported by Ruhe, which had been caught by Karl Kreth in the country around Niellim and Korbol, North of Fort Archambault (Sarh) in S. Chad, belonging to *Diceros bicornis longipes*.

*F* 1938 July 15 – 1969 July 16 †  
'Peggy' 122-STL 3  
Imported from Tanzania. Died of cancer of the uterus and ovaries.

*F* 1938 July 15 – 1968 August 11 †  
'Pudgy' 123-STL 4  
Imported from Tanzania.

*M* 1965 June 16 – 1976 April 19 †  
'Boyle' 120-STL 1  
Imported from Rumuruti, Kenya, by Carr Hartley.

*F* 1965 June 16 – 1991 June 26  
'Olive' 121-STL 2  
Imported from Rumuruti, Kenya, by Carr Hartley. It was three years old on arrival. To Oklahoma.

*F* 1970 April 30 – 1971 June 8  
'Oliveoil' 179-STL 5  
Born to Boyle (120) and Olive (121). To Memphis.

*F* 1972 March 5 – 1981 May 20 †  
'Martini' 186-STL 6  
Born to Boyle (120) and Olive (121), gestation 460 days.

*F* 1974 August 20 – 1975 December 2  
'Ruby' 232-STL 7  
Born to Boyle (120) and Olive (121). To Toronto.

*M* 1976 September 12 –  
'Toto' 251-STL 8  
Imported from Kenya (by International Animal Exchange). Toto's mother was shot when she charged a road crew and killed a man. The crew was unaware of the baby's existence. However, a ranger found some Kenyan children feeding goat's milk and bananas to the baby rhinoceros. It was cared for by the

ranger and his wife until it was given to the International Animal Exchange. See Fig. 3.

*M* 1976 December 4 – 1978 June 27  
'Kifaru' 252-STL 9  
Born to Boyle (120) and Olive (121). To Frankfurt am Main.

*F* 1984 October 30 –  
'Betsy' 212-DTT 4  
From Detroit.

*F* 1985 October 31 – 1986 April 27 †  
'Sweet Pea' 353-STL 10  
Born to Toto (251) and Olive (121). Died of enteritis.

*F* 1986 November 6 – 1987 July 9  
'Priscilla' 367-DTT 5  
Born to Toto (251) and Betsy (212). To Tyler.

*F* 1990 January 5 – 1990 January 12 †  
423-STL 11  
Born to Toto (251) and Betsy (212). The baby was premature and survived only a few days (Herrmann and Miller 1991).

*F* 1991 June 28 – 1994 December 11  
'Jeri' 330-NDL 4  
From Oklahoma. To San Diego WAP.

*M* 1991 October 21 – 1993 August 11  
'Werikhe' 459-STL 12  
Born to Toto (251) and Betsy (212). Birth weight 74 lbs, gestation 16 months and 19 days. To Oklahoma. See Fig. 121.

**St Petersburg, Russia***Zoological Gardens*

*M* ? – 1909 November  
Date of arrival uncertain. In 1909 it went to Berlin Zoo.

1940 – 1941

These dates were recorded by Denis Levy (in Rookmaaker and Reynolds 1985: 142).

*M* 1957 July 4 – 1973 August 3  
'Tschoni' 044-LED 11  
Imported from Tanzania. The early editions of the studbook mentioned two animals, No. 44 which arrived on 2nd July 1954 and No. 149 in 1957. This referred to one animal only. To Grodno.



**Sydney, New South Wales, Australia**

**Taronga Zoo**

Hallstrom (1967) published details on the breeding of black rhinos in the 1960s. Some dates of early animals were recorded by Marvin Jones (in Rookmaaker and Reynolds 1985: 142). Additional information was provided by R. Strahan (in litt. 1972) and recently by the zoo's registrar, Carol Bach (in litt. Feb. 1994).

*M* 1938 October 10 – 1947 June 8 †  
'Rupert' 503-SYD 9

A Mr. H.B. Brown was sent by the zoo to visit the animal dealer Schulz in Tanzania (traveling via South Africa). He returned with this example and the following one, both caught in Tanzania. He described part of his visit as follows in the *Sydney Daily* of 16th December 1938: "Mr. Brown arrived at the ranch of Mr. Schulz, which is 40 miles from Arusha, at 2 a.m. The homestead is surrounded by a chain wire fence 12 ft in height, to keep out wild animals such as hyenas, from taking the antelopes, and other small animals captured by Mr. Schulz and awaiting shipment to many parts of the world." See Fig. 122.

*F* 1938 October 10 – 1943 August 27 †  
'Ruby' 504-SYD 10

Imported from Tanzania (Schulz). It was two years old on arrival. After its death, the hide was mounted, a task only completed in 1946, to be exhibited in the zoo refreshments room (*Daily Telegraph*, 13th April 1946). See Fig. 122.

*F* 1947 January 11 – 1974 August 12 †  
'Sonya' 196-SYD 6  
Imported from Tanzania. It was four years old on arrival.

*M* 1947 July 10 – 1947 November 25 and  
1981 June 23 – 1982 August 30 †  
'Sinya' 097-ADL 1  
Imported from Tanzania. This and the following two animals, received on the same date, were donated by Sir Edward Hallstrom. They were purchased or captured during the 'Australian Zoological Expedition to Africa' (Strahan 1991: 49). This animal is sometimes confused with the male 'Ferdinand' (99-SYD 1) which probably arrived in 1950. In his recent account of the expedition, Strahan (1991: 49) clearly says that three black rhinos were re-



Fig. 121. One-year-old male 'Werikhe' at St Louis, 1992.

ceived. Those three are the following male 'George' and female 'Esther', and this male called 'Sinya' which was donated to Adelaide Zoo on 25th November 1947 by Sir Edward Hallstrom. This donation is recorded by Adelaide Zoo, adding that it was caught at Sinya in Northern Tanzania. It is likely that the other pair came from the same area, or at least from Tanzania. 'Sinya' returned from Adelaide to Sydney on 23rd June 1981 and died in 1982.

*M* 1947 July 10 – 1951 May 29 †  
'George' 505-SYD 11  
From Tanzania (see previous entry).

*F* 1947 July 10 – 1953 July 16 †  
'Esther' 506-SYD 12  
Captured in Tanzania, together with the above two animals.

*F* 1948 May 25 – 1963 October 5 †  
'Dianne' 507-SYD 13  
Captured in Kenya (W. de Beer).

*F* 1948 May 25 – 1955 July 7 †  
 'Tyra' 508-SYD 14  
 Captured in Kenya (W. de Beer).

*M* 1948 August 16 – 1950 March 1  
 'Peter' 509-SYD 15  
 Captured in Kenya (K. Randall). To Melbourne.

*F* 1948 August 16 – 1974 August 3 †  
 'Peggy' 100-SYD 2  
 Captured in Kenya (K. Randall). The studbooks give the date of arrival as 28th May, but this is probably incorrect.

*M* 1950 February 13 – 1978 June 14 †  
 'Ferdinand' 099-SYD 1  
 Captured in Tanzania (A. Künzler). It is sometimes confused with the male 'Sinya', which arrived on 10th July 1947 and was donated to Adelaide.

*F* 1950 February 13 – 1966 March 8 †  
 'Mary' 510-SYD 16  
 Captured in Tanzania (A. Künzler).

*F* 1950 February 13 – 1950 February 23 †  
 'Matilda' 511-SYD 17  
 Captured in Tanzania (A. Künzler).

*F* 1958 August 23 – 1991 October 28  
 'Taronga' 197-SYD 7  
 Born to Ferdinand (99) and Peggy (100). Photograph in Strahan (1991: 50). To Dubbo. See Fig. 123.

*M* 1958 October 11 – 1958 October 11 †  
 512-SYD 18  
 Stillborn to Ferdinand (99) and Sonya (196). It died of acute internal haemorrhage.

*F* 1960 April 17 – 1966 May 8 †  
 'Mildred' 513-SYD 19  
 Born to Ferdinand (99) and Sonya (196). The date of death is not clear. Strahan (in litt. 1972) recorded 8th May 1966, while sometimes the date 29th March 1967 is given.

*F* 1963 January 11 – 1969 August 14  
 'Squeaker' 102-SYD 4  
 Born to Ferdinand (99) and Dianne. To Australia: Ashton's Animal Kingdom.



Fig. 122. Sydney: 'Rupert' and 'Ruby' imported in 1938 from Tanzania.

*F* 1965 May 2 – 1980 September 24 †  
 'Beauty' 101-SYD 3  
 Born to Ferdinand (99) and Peggy (100).

*F* 1965 August 19 – 1965 August 21 †  
 514-SYD 20  
 Born to Ferdinand (99) and Taronga (197).

*M* 1967 May 26 – 1972 October 24 †  
 'Pompey' 106-SYD 5  
 Born to Ferdinand (99) and Peggy (100). The various editions of the studbook record its death as 24th June 1972, while the zoo now mentions 24th October 1972.

*F* 1967 July 26 – 1967 July 26 †  
 515-SYD 21  
 Stillborn to Ferdinand (99) and Taronga (197).

*M* 1975 May 20 – 1988 July 18  
 'Cody' 260-SYD 8  
 Born to Ferdinand (99) and Beauty (101). To Berlin Zoo.

*F* 1981 August 28 – 1991 November 8  
 'Dynah' 096-PER 1  
 From Perth. To Dubbo.

### Taipei, Taiwan

#### Taipei Zoo

*F* 1986 April 25 –  
 'Sachi' 354-HIR 7  
 From Hiroshima. See Fig. 124.

*M* 1986 October 21 – 1994 September 7 †  
 'Masaru' 350-NGO 8  
 From Nagoya.

*F* 1987 April 13 –  
 'Shi Nei' 284-HIR 4  
 From Hiroshima. The zoo (wrongly?) records the arrival as 9th December 1987.

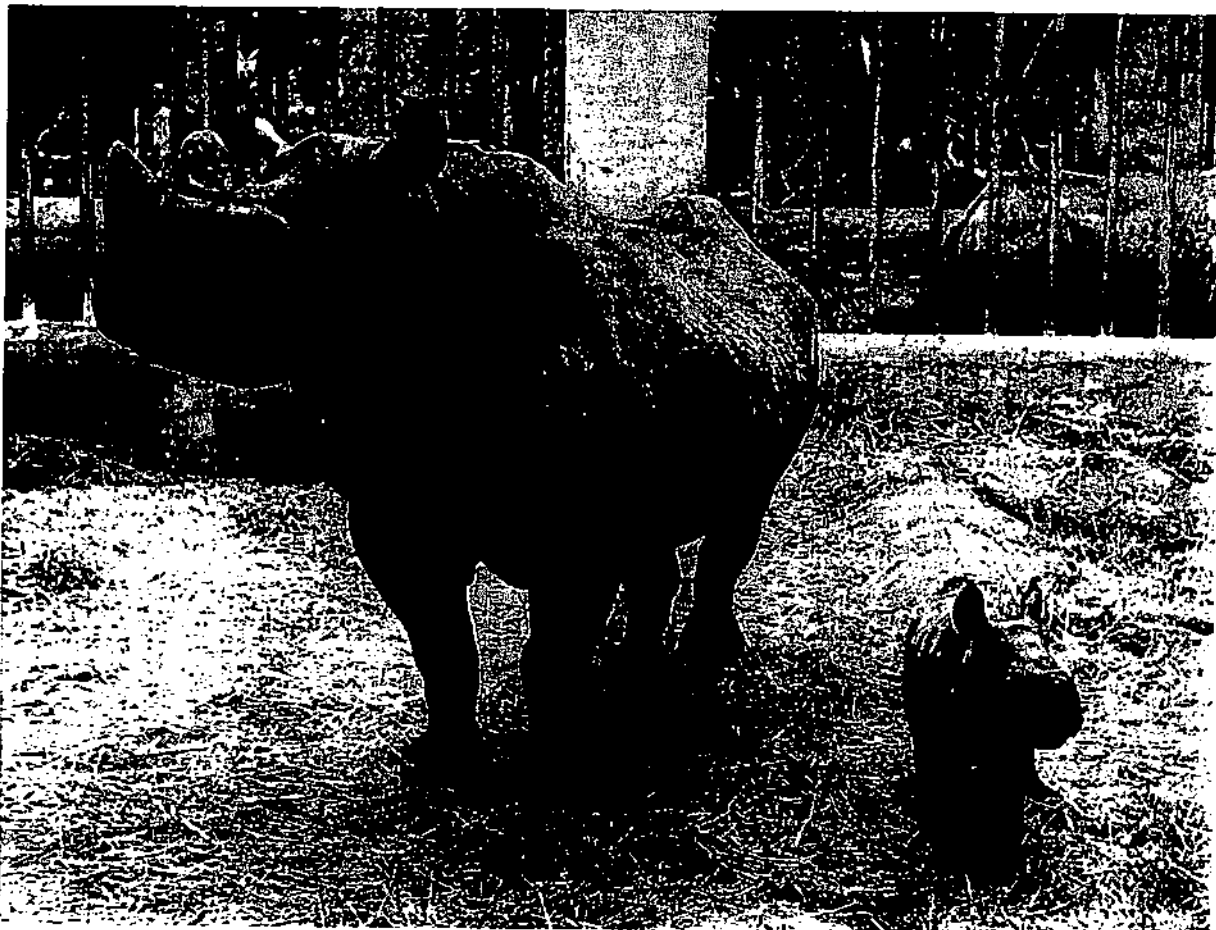


Fig. 123. Sydney's first calf 'Taronga' with mother 'Peggy' in 1958.

**Tallinn, Estonia***Tallinn Zoo*

*M* 1988 September 12 –  
 'Murray' 171-DVU 3  
 From Zurich.

*F* 1990 August 1 –  
 'Sheiba' 035-TOR 2  
 From Alma Ata.

**Tampa Bay, FL, USA***Busch Gardens*

*M* 1969 May 22 – 1985 January 5 †  
 'Joe' 155-TAM 1  
 Imported from East Africa by Carr Hartley.

*F* 1969 September 7 – 1971 January 7 †  
 'Myrtle Mae' 138-OKC 3  
 From Oklahoma. Strangely, the animal does not appear in the zoo records.

*F* 1971 July 24 – 1990 August 14  
 'Julie' 225-TAM 2  
 Imported from Kenya by W. Schulz. To Cincinnati.

*F* 1974 November 11 – 1978 July 19  
 'Frances' 226-TAM 3  
 Born to Joe (155) and Julie (225). To St. Félicien.

*M* 1976 October 31 – 1978 July 19  
 'Macho' 243-TAM 4  
 Born to Joe (155) and Julie (225). To St. Félicien.

*F* 1981 June 30 – 1982 August 19 †  
 'Juliette' 309-TAM 5  
 Born to Joe (155) and Julie (225).

*F* 1983 April 4 – 1987 September 10 †  
 343-TAM 6  
 Born to Joe (155) and Julie (225).

*M* 1986 February 9 –  
 'Little Joe' 356-TAM 7  
 Born to Joe (155) and Julie (225).

*F* 1990 August 11 –  
 'Jody' 418-OKC 9  
 From Detroit.



Fig. 124. Black rhino enclosure in Taipei in 1993.

*M* 1991 August 21 –  
 'Jasper' 432-DEN 11  
 From Denver.

*F* 1992 May 24 – 1993 December 21 †  
 'Akili' 444-CHI 9  
 From Chicago Brookfield.

*F* 1994 December 21 –  
 'Jumatano' 517-TAM 8  
 Born to Little Joe (356) and Jody (418).

**Teheran, Iran***Zoological Gardens*

No recent information could be obtained. The following dates are taken from the studbook.

*M* 1964 –  
 'Kifaru' 158-TEH 1  
 Imported from Kenya.

*F* 1968 –  
 'Maru' 159-TEH 2  
 Imported from Kenya.

*M* 1971 May 17 –  
 'Nanyuki' 160-TEH 3  
 Born to Kifaru (158) and Maru (159).

*F* 1973 –  
 'Maruni' 313-TEH 4  
 Born to Kifaru (158) and Maru (159).

*M* 1975 – 1984 †  
 'Magatu' 314-TEH 5  
 Born to Kifaru (158) and Maru (159).

*F* 1977 -  
'Marubi' 315-TEH 6  
Born to Kifaru (158) and Maru (159).

*F* 1980 October - 1981 February †  
316-TEH 7  
Born to Kifaru (158) and Maru (159).

# **Thoiry, France**

## *Parc Zoologique*

*M* 1968 April - (?)  
Ruhe (1970: 253) reported the arrival of a pair of rhinos from Kenya in 1968.

*F* 1968 April - 1971 June 25  
167-LEJ 2  
Imported from Kenya. To Leipzig.

# **Thousand Oaks, CA, USA**

## *Louis Goebel's Jungle Land*

*M* 1962 November 3 - 1963 July 9  
'Romeo' 065-MEM 1  
Imported by Ruhe. To Fresno.

*F* 1962 November 3 - 1963 July 9  
'Juliette' 553-???  
Imported by Ruhe. To Fresno.

# **Tokyo, Japan**

## *Ueno Zoo*

### 1933 Spring - 1933

This animal came to Japan with Hagenbeck's circus. It was not bought by Ueno Zoo (Reynolds 1963: 108), and left the country again as no Japanese zoo could afford to purchase it (Sotani 1974).

*M* 1952 July 28 - 1964 October 26 †  
'Saitaro' or 'Harry'  
Imported from Kenya by Carr Hartley. While still in Kenya, it appeared in an American movie 'The Snows of Kilimanjaro', starring Gregory Peck, Susan Hayward and Ava Gardner, based on a novel by Ernest Hemingway (released in 1952). Died of obstipation.

*F* 1956 May 3 - 1956 December 14 †  
'Roughskin'

*F* 1957 June 22 - 1966 July 26  
'Lulu'

The records of Ueno zoo show that this animal was traded to an unidentified collection in Pusan, South Korea.

# **Toledo, OH, USA**

## *Zoological Gardens*

*F* 1926 May - 1940 July 2 †  
'Sada'

Purchased by Mr. Sam Davis for \$8000. It was 11 months old on arrival, but its origin is not clear. It was mentioned with a photograph in the *Annual Report* of Toledo Zoo for 1926/27.

*F* 1948 - died before 1966  
This animal was alive in 1962 (Reynolds 1963: 111), but absent in 1966.

# **Torino, Italy**

## *Giardino Zoologico della Citta di Torino*

*M* 1966 July 5 - 1972 September 28  
034-TOR 1  
Imported from Kenya. To Atlanta.

*F* 1970 June 25 - 1972 September 1  
'Sheiba' 035-TOR 2  
Imported from Kenya. To Alma Ata (via Gelsenkirchen).

# **Toronto, Ontario, Canada**

## *Metro Toronto Zoo*

*M* 1975 December 4 - 1977 July 25 †  
'Spook' 204-DEN 5  
From Denver.

*F* 1975 December 4 - 1977 July 26 †  
'Ruby' 232-STL 7  
From St Louis.

# **Tulsa, OK, USA**

## *Tulsa Zoo*

*M* 1979 November 29 - 1980 January 16 †  
'Arthur' 257-BUF 1  
From Buffalo. It died of cardiac arrest.

**Tyler, TX, USA***Caldwell Zoo*

*F* 1987 July 9 – 1990 January 30 †  
 'Priscilla' 367-DTT 1  
 From St Louis.

*F* 1987 July 21 –  
 'Crista' 359-STA 6  
 From San Antonio.

*M* 1988 September 15 –  
 'Nakuu' 362-MIA 4  
 From Miami.

*M* 1988 October 10 –  
 'Corky' 372-CHI 7  
 From Chicago Brookfield.

*F* 1993 May 30 – 1994 June 30  
 'Rafiki' 489-TYL 1  
 Born to Nakuu (362) and Crista (359). To  
 Lansing.

**United States of America***Travelling shows and circuses*

1872 May – ? 1880 †  
 On 6th June 1872, Hyatt Frost wrote about the arrival two weeks earlier of a "black two-horned rhinoceros" in St Mary's, Canada for the Van Amburgh Circus. It had been brought from England by a Mr. Ferguson who had also bought animals at the large auction of Wombwell's Menagerie in Edinburgh in April 1872. Ferguson represented Van Amburgh and bought several animals, including a nyghau, ocelot, three African porcupines, a wombat and a spotted hyena (Barnaby 1988). The rhinoceros did not come from Wombwell and must have been purchased elsewhere. It was probably a black rhinoceros, or even Sumatran. It was still on exhibition in 1880.

1877 – 1885 (?)  
 Montgomery Queen obtained a black rhinoceros in 1877 while in Haywood, CA. It had been shipped on board the 'Colon' from New York to California in 1877 [not 1879] as reported in *Der Zoologische Garten* 1879: 157 (but said to be a *R. sondaicus*). The circus was auctioned on 21st February 1878 and the rhino was bought by the Sells Bros. of Columbus,

OH, for \$3600. It is unlikely that it was alive after 1885.

*F* 1878 – 1886

'Bohu'  
 W.W. Cole imported a female African black rhinoceros from Hamburg in 1878. It stayed with W.W. Cole's circus until 1886. It was included in the 1880-1881 tour of Australia and New Zealand. In 1886, at an auction in New Orleans, the rhino was purchased by Central Park Zoo, New York for \$4200.

1889 – ?

A 'two-horned rhinoceros' arrived in the circus of John Robinson in 1889. It might have been a black rhinoceros. No further particulars about its death are available.

1905 – 1913 June 17 †

The Barnum & Bailey Circus acquired a young black rhinoceros in 1905. There is a photograph dated 1905 (Rookmaaker and Reynolds 1985, fig.3). It died in 1913 at Brantford, Ontario, Canada.

*M* 1909 March 25 – 1918 †

Ringling Bros. bought this animal from Ruhe, Germany for \$4000. The animal was to be delivered to the circus in Madison Square Gardens, New York, between 20th and 25th March 1909. R.J. Reynolds has a photograph of a black rhinoceros in the Ringling circus taken on 19th June 1917 at Providence, RI. At the end of 1918, Col. W. Woodcock visited the circus. There was no rhinoceros there and the keepers said that it had died, probably in the autumn of 1918.

*M* 1929 April 4 – 1935 October 25 †

'Bill'  
 Purchased from Ruhe for \$10,000 (*N.Y. Times*, 5th April 1929, p.13). Exhibited by Ringling Bros, Barnum & Bailey combined shows. It died of pneumonia while at Knoxville, TN (Reynolds 1982: 23).

*F* 1930 – 1933/1934 †

'Lil'  
 Exhibited by Ringling Bros, Barnum & Bailey combined shows.

*F* 1934 October 17 – 1935 July 5 †

'Mary'  
 This black rhinoceros was sent from Hagenbeck in Hamburg to John Benson's Animal



Farm in Nashua, where it stayed from April or May 1933 to September or October 1933. It was then sent to the owner, the Metro-Goldwyn-Mayer Motion Pictures studios in Hollywood, CA. The animal was trained by Volney Phifer and George Emerson and would lie down, roll over, and could be ridden. It was sold to Ringling Bros., Barnum & Bailey combined shows, arriving at Sarasota, FL, on 17th October 1934. It died at Springfield, MA.

*M* 1945 June 5 - 1953 May 31 †  
'Bobby' 531-CHI 11  
From Chicago Brookfield (born 21st September 1944). Exhibited by Ringling Bros, Barnum & Bailey combined shows. The animal died while at Baltimore, MD, of dysentery and pneumonia. Reynolds (1982: 24) published a photograph.

1949 - 1953 March 2 †  
Exhibited by Al. G. Kelly & Miller Bros. Circus. It died in its winter quarters at Hugo, OK.

*F* 1952 August 28 - 1960 †  
'Molly'  
This animal had appeared in two movies filmed in Africa. The date of arrival was recorded in *Billboard*, 6th September 1952, p.84. It was owned by Tony Diano, and in between tours, was kept at a private menagerie in North Industry, OH. It was shown by the Diano Bros. circus in 1953. In 1954 it toured with the World of Mirth carnival. During the 1956, 1958 and 1960 seasons, it was with Cristiani Bros. circus. It died while on tour with this company in Illinois in the summer of 1960. See Fig. 126.

*M* 1955 - 1958  
'Bill'  
Exhibited by Ringling Bros, Barnum & Bailey combined shows. It was received in the spring of 1955 while at Madison Square Gardens, New York. In spring 1958, it was loaned to the zoo at Pawtucket, RI. See Fig. 125.

*F* 1955 - 1958 August  
'Lil'  
Exhibited by Ringling Bros, Barnum & Bailey combined shows. It was received together with the previous male. Sold to Memphis Zoo.

1955 May - 1955 †  
Acquired together with the male which joined George W. Cole's circus in 1955 (following entry). Exhibited by Al G. Kelly & Miller Bros. circus. It died before the close of the 1955 season.

*M* 1955 June - 1965  
Exhibited by George W. Cole's circus, which in 1957 changed its name to the Famous Cole Circus. The Cole circus was based in Hugo, OK, as was its affiliate, the Al G. Kelly & Miller Bros. Circus. In 1960, the rhinoceros was transferred to the larger Kelly-Miller show. It was sold in 1965 to the Bell's Brothers Circus in Mexico.

*M* 1959 - 1959/1960 †  
Exhibited by Cristiani Bros. Circus. It arrived in the winter of 1959 from Ruhe, but died at the end of that year or early in 1960.

*F* 1974 October 24 - 1984 October 6  
'Kenya' 311-HAI 1  
Imported by Tom Hunt for circus animal trainer Roman Schmitt. It arrived at Kennedy International Airport, New York on 24th October 1974 aboard a DC-10 with two other rhinos and 75 zebras. Schmitt's rhinoceros was trained to perform together with an Indian elephant, and there is a video recording of this act which toured with various indoor circuses. The animal stopped touring in 1979 and

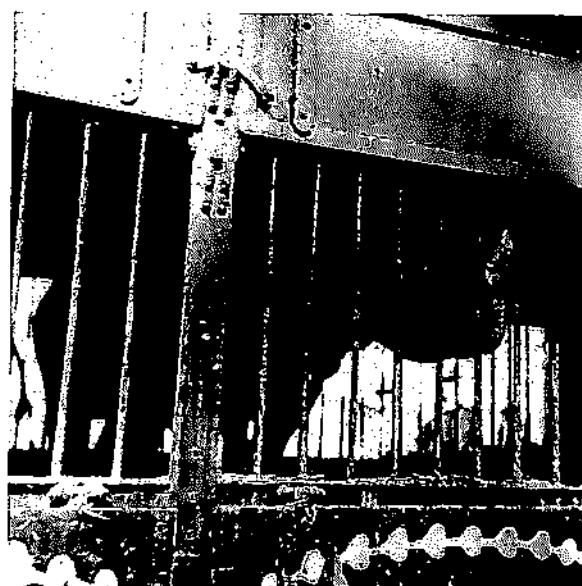


Fig. 125. Ringling Bros. and Barnum & Bailey Circus had two black rhinos in 1955; the one shown here was photographed in Atlanta, GA, in November 1955.

remained with Schmitt in Haines City, where R.J. Reynolds saw it in August 1984. It was kept in an off-exhibit enclosure with an African and an Asian elephant. In 1984 it went to Columbus.

### Vadodara, Gujarat, India

#### Zoological Gardens

On 3rd March 1995, I had an opportunity to visit the zoo in Vadodara, previously called Baroda. Apart from some good deer and tiger enclosures, it would have been hard to know where rhinos could have been kept. I did not see any rhinos during my visit.

#### M 1990 - (?)

From Mysore. In 1990, the female Indian rhinoceros in Vadodara was traded with "a young pair of African black rhinos" (Anonymous 1990). There were several young black rhinos in Mysore and it is not clear exactly which specimens were exchanged.

#### F 1990 - (?)

From Mysore, together with the preceding male.

### Verona, Italy

#### Langato Safari

F 1975 March - 1977 May 6

'Mzima'

240-BE 7

Captured in the Tana River District, Kenya, and imported by Heini Demmer (Frese 1983: 38). To Berlin Zoo.

F 1975 June - 1977

227-DEM 1

Imported from Kenya. To Veszprem.

### Veszprem, Hungary

#### Kittenberger Zoo

F 1977 - 1979 April 21 †

'Susie'

227-DEM 1

From Verona (dealer H. Demmer). See Fig. 127.



Fig. 126. Tony Diano's rhino semi-trailer with Cristiani Bros. Circus at East Point, GA, on 20th April 1958.

**Vienna, Austria**

*Schönbrunner Tiergarten*

*M* 1931 April 5 – 1945 February 21 †  
'Toni'

Imported by Ruhe from Rhodesia, when it was four years old. It is said that this animal had first been exhibited in Dusseldorf for four years. Antonius (1937: 22-23, figs. 4-5) published two photographs taken around 1931 and 1932. It was killed in an air raid (photograph in Brachetka 1947: 74, fig. 9).

*F* 1942 October 26 – 1967 †

Imported from Kenya. Grünberg and Burt-scher (1968) reported a pox virus which caused its death. They stated that the animal arrived in 1942 and died when it was about 30 years old (but they do not give a date).

*M* 1952 June 20 – 1953 January 17 †  
Imported from Kenya by Heini Demmer.

*F* 1952 June 20 – 1965 April 19 †  
'Molli'

Imported from Kenya by Heini Demmer. The remains are preserved at the Zoological Institute in Vienna.

*M* 1954 October 2 – 1990 April 29 †  
'Toni' 039-VIE 1  
From Wuppertal.

**Wakayama Prefecture, Japan**

*Adventure World*

*M* 1978 April 19 – 1980 January 20 †  
'Tony' 141-UKB 4  
From Kobe. Died of bleeding from the mucous membrane of the nose.

**Washington, DC, USA**

*National Zoological Gardens*

*M* 1923 August 2 – 1925 March 13 †  
Captured in Rhodesia [Zimbabwe], imported by Hagenbeck. It was one year old on arrival.

*M* 1930 July 22 – 1943 August 18 †  
'Fritz'  
Bought from Ruhe.

*F* 1948 May 21 – 1948 December 31

On temporary deposit from an unknown owner. The destination of the animal is also unknown.

*M* 1948 August 7 – 1951 February 12 †

*M* 1951 November 16 – 1957 July 12 †  
Imported by Ruhe.

*M* 1953 May 29 – 1957 July 12 †  
Imported by Hagenbeck with the next female.

*F* 1953 May 29 – 1959 April 21 †  
'Josephine'  
Imported by Hagenbeck.

*M* 1960 July 27 – 1979 June 5 †  
'Tony' 046-WAS 1  
Imported from East Africa (dealer John Sea-go). This animal and the following female were named after Tony and Thelma Parkinson.

*F* 1961 August 30 – 1978 July 23 †  
'Thelma' 047-WAS 2  
Imported from East Africa (dealer John Sea-go). See Fig. 128.



Fig. 127. Black rhinoceros exhibited in Veszprem from 1977-1979.

*M* 1967 August 31 – 1970 April 2  
 'Dillon' 110-WAS 3  
 Born to Tony (46) and Thelma (47). Gestation period 472 days. The animal was named after S. Dillon Ripley, Secretary of the Smithsonian Institution. To San Diego Wild Animal Park.

*F* 1970 February 20 – 1980 December 12 †  
 'Mary' 139-WAS 4  
 Born to Tony (46) and Thelma (47).

*M* 1978 January 4 – 1984 April 17  
 'Nepo' 266-WAS 5  
 Born to Tony (46) and Mary (139). To Seoul (via International Animal Exchange).

### Whipsnade, UK

*Zoological Society of London*  
*Whipsnade Park*

*F* 1939 May 3 – 1939 December 23 †  
 'Kathleen' 549-LON 11  
 From London.

*M* 1960 June 14 – 1962 November 15 †  
 Imported by John Seago.

*F* 1960 June 14 – 1960 December 28 †  
 Imported by John Seago.

*F* 1960 June 14 – 1960 July 12  
 On deposit from John Seago and returned to him. The final destination was not recorded.

*M* 1963 July 27 – 1988 June 7  
 'Bwana Mkubwa' 018-WHI 1  
 Imported by John Seago from Kenya. It was in London from 1st April 1974 to 24th June 1975 and again from 16th October 1978 to 14th May 1985. In 1988 it was sent to Port Lympne.

*F* 1963 July 27 – 1988 January 19  
 'Mama Kidogo' 019-WHI 2  
 To London.

*M* 1970 November 25 – 1972 April 20  
 'Kijana' 157-WHI 3  
 Born to Bwana Mkubwa (18) and Mama Kidogo (19). To Dublin.

*M* 1973 August 31 – 1974 November 21 †  
 'Mkunzi' 198-WHI 4  
 Born to Bwana Mkubwa (18) and Mama Kidogo (19).



Fig. 128. Washington, DC: postcard of mother 'Thelma' with calf 'Dillon', 1967.

*F* 1977 July 8 – 1977 July 8 †  
 524-WHI 8  
 Stillborn to Bwana Mkubwa (18) and Mama Kidogo (19).

*M* 1978 October 16 – 1984 February 26 †  
 'Caspar' 022-HOL 1  
 From London.

*F* 1979 September 16 – 1981 June 9  
 'Katie' 278-WHI 5  
 Born to Bwana Mkubwa (18) and Mama Kidogo (19). To Winchester.

*M* 1982 October 4 – 1984 May 1  
 'Parky' 318-WHI 6  
 Born to Caspar (22) and Mama Kidogo (19). To Chester.

*M* 1985 December 28 – 1985 December 28 †  
 358-WHI 7  
 Aborted calf to Bwana Mkubwa (18) and Mama Kidogo (19).

*M* 1993 October 22 –  
 'Kati Kati' 453-HYT 8  
 From Port Lympne.

*F* 1993 October 28 –  
 'Emma' 451-CHE 6  
 From Chester.

### Wichita, KS, USA

*Sedgwick County Zoo*

*F* 1972 May 24 – 1974 January 15  
 'Rosie' 063-MKC 2  
 From Kansas City. To Oklahoma.

*M* 1973 November 1 – 1978 January 7 †  
'Larry' 189-DTT 3  
From Detroit. Died of multiple heart attacks,  
probably due to autoimmune disease.

*F* 1973 November 5 – 1988 October 5  
'Scooter' 192-OKC 4  
From Oklahoma. To San Diego.

*M* 1981 June 25 –  
'Bora' 301-CVG 10  
From Cincinnati.

*F* 1988 August 2 –  
'Bibi' 053-DTT 2  
From Oklahoma.

*M* 1989 October 18 – 1989 October 18 †  
439-SCZ 1  
Aborted calf to Bibi (53).

*F* 1991 April 21 – 1991 April 21 †  
440-SCZ 2  
Aborted calf to Bora (301) and Bibi (53). It  
weighed 15 lbs on birth. It may have died due  
to a torn amniotic sack.

1991 December 4 – 1991 December 4 †  
Aborted foetus, about four months into preg-  
nancy, to Bibi (53).

*M* 1993 August 16 –  
'Rudisha' 490-SCZ 4  
Born to Bora (301) and Bibi (53).

## Winchester, UK

### Marwell Zoological Park

*M* 1980 December 3 – 1986 February 26 †  
'Kes' 269-LON 6  
From London. It was ill for some months and  
failed to respond to treatment; it died at 11:45  
pm. See Fig. 129.

*F* 1981 June 9 – 1986 March 18 †  
'Katie' 278-WHI 5  
From Whipsnade. Died of heart failure.

## Wroclaw, Poland

### Miejski Ogród Zoologiczny

1888 May 15 – 1892 July 24 †  
Before arriving at the zoo, the animal had  
travelled with Hagenbeck's Nubian Africa  
show for about ten years (Reynolds 1963: 99,  
Kourist 1973: 139). Died of tuberculosis.

*F* 1906 October 26 – 1907 January 7 †  
'Salome'  
Imported by Ruhe, from Kilimanjaro, Tanza-  
nia. It was one year old on arrival and cost  
20,000 Marks.

*M* 1932 September 20 – 1932 November 23 †  
Captured in East Africa. On loan, but the owner  
was not identified. Gleiss (1967: 241) said that  
it only lived for a few weeks, so it may have  
died in November 1932.

*M* 1965 September 8 – 1972 December 7 †  
162-WRO 1  
According to the zoo records, it came from  
Holland.

*F* 1972 September 17 – 1979 April 12 †  
193-WRO 2  
It was imported from Kenya. See Fig. 130.

*M* 1976 February 11 – 1980 October 2  
171-DVU 3  
From Dvur Kralove and returned there. See  
Fig. 130.

## Wuppertal, Germany

### Zoologischer Garten

*M* 1951 August 14 – 1952 February 20 †  
'Coco'  
The origin is not recorded. It died of heart  
degeneration and gastroenteritis.

*M* 1954 June 19 – 1954 September 29  
'Toni' 039-VIE 1  
Imported by Molinar from East Africa. It was  
on loan from the dealer Fockelmann. To Vien-  
na.



Fig. 129. Pair of black rhinos at Marwell Zoological Park, Winchester (postcard, ca. 1985).

### Yokohama, Japan

#### Kanazawa Zoo

*F* 1965 August 6 – 1974 February 4 †  
 'Hanako' 091-OSA 2  
 From Osaka.

*F* 1991 January 8 –  
 'Lora' 421-HIT 6  
 From Hitachi.

*M* 1992 October 9 –  
 'Lon' 420-HIR 10  
 From Hiroshima. See Fig. 131.

### Yoshikawa, Japan

#### Unidentified collection

This collection is listed in the studbook. It probably refers to a dealer.

*M* 1988 May 30 – 1988 December 23 †  
 320-KAG 1

From Nagoya.

### Yulee, TX, USA

#### White Oak Wildlife Center

*M* 1992 April 21 – 1992 August 22 †  
 'Chifu Mbi' 471-YUL 2  
 Imported from Zimbabwe, when it was two years old.

*F* 1992 April 21 –  
 'Mwenda' 468-YUL 1  
 Imported from Zimbabwe, when it was 14 years old.

*M* 1994 July 31 –  
 'Tortoise' 522-YUL 3  
 Imported from Zimbabwe, when it was seven years old.



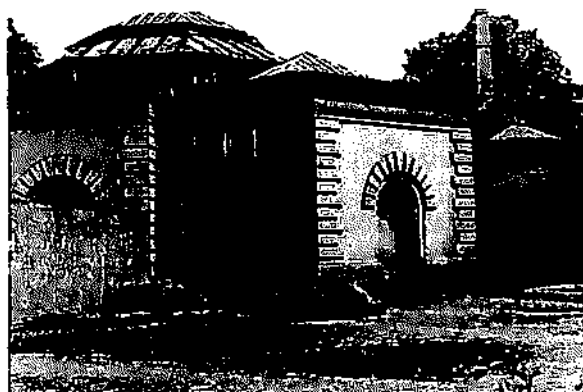


Fig. 130. Black rhinoceros in enclosure at Wrocław, July 1978.

M 1994 July 31 –  
'Clem' 523-YUL 4  
Imported from Zimbabwe, when it was seven years old.

## Zagreb, Croatia

### Zoological Gardens

F 1962/1963 – ?  
Dates recorded by Reynolds (1963: 113).

F 1964 October 10 – 1981 March 28 †  
'Laura' 041-ZAG 2  
Imported from Kenya by Carr Hartley.

M 1967 May 16 – 1982 March 5 †  
'Roy' 040-ZAG 1  
Imported from Kenya by Carr Hartley.

F 1970 December 24 – 1972  
'Eva' 156-ZAG 3  
Born to Roy (40) and Laura (41), as recorded by Klimek (1971). To Osijek.

## Zimbabwe

### Private collections

#### 1. Salisbury: Mrs. Joan Condy

M 1962 May – 1962 November 4  
'Rupert'  
The mother died during 'Operation Noah', while being relocated from Lake Kariba to Wankie National Park. The baby was named after Rupert Fothergill. It was hand-reared in the house of "a government veterinary surgeon and his wife". When it was about six



Fig. 131. Yokohama's male 'Lon' in 1993.

months old, it was taken to Matopos National Park, South of Bulawayo and released into the wild (see report in *Oryx*, 7 (1): 22-25, 5 figs., 1963).

#### 2. Marondera: Imire Game Ranch

Mr. Norman Travers of Imire Game Ranch in Zimbabwe has kept seven black rhinos since about 1986. They were acquired when very young (D.H.M. Cumming, Harare, in litt. 13.1.1994). No detailed information could be obtained.

## Zurich, Switzerland

### Zoologischer Garten

M 1949 September 24 – 1983 May 10 †  
'Billy' 031-ZRH 1  
Imported by Künzler from Tanzania.

F 1949 September 24 – 1982 Dec. 31 †  
'Faru' 033-ZRH 3  
Imported from Tanzania.

F 1965 May 30 –  
'Susi' 032-ZRH 2  
Imported from Kenya.

F 1970 August 27 –  
'Mtoto' 150-ZRH 4  
Born to Billy (31) and Susi (32).

M 1976 August 17 – 1980 September 30 †  
'Chungu' 241-ZRH 5  
Imported from Kenya.

*M* 1978 September 18 – 1980 August 5  
 'Embu' 271-ZRH 6  
 Born to Chungu (241) and Mtoto (150). To  
 Chicago Brookfield.

*M* 1981 April 2 – 1983 April 25  
 'Fridolin' 145-HAJ 5  
 From Hannover and returned there.

*M* 1983 April 23 – 1988 September 12  
 'Murray' 171-DVU 3  
 From Dvur Kralove. A gift of the Zürcher  
 Kantonalbank. To Tallinn.

*F* 1983 April 23 –  
 'Sabi' 217-DVU 12  
 From Dvur Kralove. A gift of the Zürcher  
 Kantonalbank.

*M* 1984 October 21 – 1987 July 27  
 'Kifaru' 349-ZRH 7  
 Born to Murray (171) and Mtoto (150), gesta-  
 tion 460 days, birth occurred at 17:04 pm. To  
 Frankfurt am Main.

*M* 1987 July 18 –  
 'Kifaru' 252-STL 9  
 From Frankfurt am Main.

*F* 1989 March 7 – 1992 November 13  
 'Pangani' 422-ZRH 8  
 Born to Kifaru (252) and Mtoto (150). To Ches-  
 ter.

*M* 1990 September 21 – 1992 November 13  
 'Quinto' 430-ZRH 9  
 Born to Kifaru (252) and Sabi (217). To Ches-  
 ter.

*F* 1992 March 15 –  
 'Siwa' 454-ZRH 10  
 Born to Kifaru (252) and Mtoto (150).

*M* 1994 July 1 –  
 'Usoni' 528-ZRH 11  
 Born to Kifaru (252) and Sabi (217).

## 8. The white rhinoceros (*Ceratotherium simum*)

The white rhinoceros is a relatively recent addition to zoo inventories. The first specimen arrived at a zoo as late as 1946. In his survey on zoo rhinos between 1946 and 1960, Reynolds (1961b) could only list 13 specimens. The white rhinoceros is an animal which is easily captured and which does not present major problems of maintenance in captivity. And therefore, it is remarkable that the animal was never kept in captivity before 1946. Around 1900, it was established that only about ten white rhinos still survived in South Africa. While it is true that this may not have been an entirely accurate figure, the animal must certainly have been very rare. If it is correct that all southern white rhinos were descended from a founder population of, say, five males and five females in 1900, it would be interesting to see whether we can add to our theories of inbreeding and numbers of animals needed in captivity to save a species from extinction. It was probably due to this idea of great rarity, combined with an unwillingness on the part of the authorities to disturb the wild population, that no animals ever came on the market. The white rhinoceros also lives in central areas of Africa such as Sudan and N.W. Uganda, and perhaps it was a general lack of interest or resources that kept these specimens from being captured.

In the 1960s, the Natal Parks Board began to sell pairs of white rhinos from Umfolozi and Hluhluwe National Parks in South Africa to interested zoological collections, as reported by Vincent (1968-1971). There then followed what must be called a daring experiment. I still remember the excitement when I first heard that Whipsnade had imported a group of 20 white rhinos in August 1970, followed by San Diego in February 1971 with a similar herd. It was an experiment since the species was still quite unheard of in zoos, and no-one knew if such large groups would breed or even coexist. In retrospect, this 'gamble' on the part of the zoological societies of London and San Diego may have saved the species. It was found that the white rhinoceros did quite well in larger groups and that they were actively breeding. The animals were easily maintained (though expensive) and were quite happy in

the safari parks which were being established at about the same time in many countries.

The first white rhinoceros in captivity was the baby Zuluana which arrived in Pretoria Zoo on 29th July 1946. In 1947, the dealer Carr Hartley had a pair of white rhinos on his farm in Rumuruti, Kenya. The first specimens in a European zoo were a pair of the northern subspecies at Antwerp, Belgium, in April 1950.

Up to the end of 1994, there have been 1105 white rhinoceroses in captivity, of which 626 (57%) were imported from the wild and 479 (42%) were born in captivity. This can be broken down as follows for the two recognized subspecies:

	<i>C.s.simum</i>		<i>C.s.cottoni</i>		Total
Imported	605	(256/347/2)	21	(9/12)	626
Births	475	(253/217/5)	4	(1/ 3)	479

### Studbook

The studbook for the white rhinoceros was started in 1966 by Dr Heinz-Georg Klös, director of Berlin Zoo and his assistants, at the same time as that for the black rhinoceros. The first list was published in 1970, when a total of 76 specimens could be listed (Klös and Frädrieh 1970). Each animal was given a number and studbook name, reflecting the collection where it was first exhibited. The studbook has been published regularly ever since, together with that for the black rhinoceros (Klös and Frädrieh 1971, Klös and Frese 1977, 1981b, 1983, 1987, 1991, 1993, Ochs 1995). In the latest edition, with data to 31st December 1994, 1044 white rhinos are listed (with 1059 being the final number, since 15 numbers have been deleted over the years), 706 (345/361) of which were stated to be alive at that time at 246 different locations. This shows the exponential growth in numbers of the white rhinoceros. My own data on the white rhinoceros do not differ much from those contained in the studbook, and have the same limitations. As the species has become more common, many are now kept in safari parks, circuses, and private collections, some of

which have little or no concern about their records or about making their data available. Letters often go unanswered. The keepers of the studbook have repeatedly asked for the support of collections in charge of white rhinos, but with rather disappointing results. Many specimens have been lost to the records. With the large increase in numbers of white rhinos, making it a first class success story for the role of zoos in conservation, the need to keep a studbook may have to be reviewed. The southern subspecies is no longer endangered. In South Africa, it can now be sold to private parties, who often allow the bulls to be hunted for commercial purposes. While this practice can be interpreted in many ways, it certainly contradicts keeping white rhinos for conservation purposes. The space and funds could better be spent on species whose existence is still seriously threatened, such as the Sumatran and African black rhinoceroses, just to mention this class of animal.

While most captive white rhinoceroses are mentioned in the studbook, it has been a particularly frustrating exercise to try to obtain independent information about them. The indications as to locality in the studbook are often just the name of a place or collection, not fully explained in the latest editions, and it is often difficult to know exactly where this collection would be. Some refer to zoos or safari parks which are usually easy to identify, while others refer to dealers or commercial collections. The fact that white rhinos are now often kept in travelling shows, in large groups in safari parks, and even in parks belonging to dealers, ensures that it is no longer possible to trace some specimens. In the present list, there are 51 specimens which have disappeared from the records without obvious trace. Some of these could have died, while others may be represented twice.

### The northern subspecies

It is a long-established fact that there are two subspecies of white rhinoceros: the southern form (*Ceratotherium simum simum*), which is restricted to the eastern part of South Africa (Natal or Zululand), and the northern form (*C.s. cottoni*) which exists in Uganda, Zaire, Sudan, Central African Republic and Chad. Although the two subspecies are rather similar, there are clear morphological characters which enable taxonomists to separate them.

The large gap between their areas of distribution also calls for the recognition of each as a separate subspecies. The northern white rhinoceros is in a very dangerous position, on the brink of extinction. There is even a question of whether it can still be saved. This should be a priority in view of the importance of understanding its position in nature. Unfortunately, the northern subspecies is poorly represented in captivity. All the early white rhinos which arrived in zoological collections in Europe and the USA in the 1950s and 1960s belonged to this subspecies. In September 1975, Dvur Kralove Zoo (then in Czechoslovakia) imported six specimens from Sudan, the first attempt to gather more than a pair of these animals. They have had rather discouraging results in their attempts at breeding (Vahala *et al.* 1993). It is one of those animals which requires special attention to save it from becoming extinct.

### Origin of imports

It can be said with safety that all specimens of the southern white rhinoceros came from Natal, from the Hluhluwe or Umfolozi parks, or from the surrounding areas. The provenance has been variously reported in the literature:

Zimbabwe	2
South Africa	29
Natal	466
Umfolozi	59
Hluhluwe	17
Kruger National Park	2
Loskop	1
'Unknown'	29
Total	605

The specimens of the northern white rhinoceros came from the Sudan or Uganda:

Sudan	17
Uganda	4
Total	21

### Longevity

The white rhinoceros fares quite well under captive conditions, with only about a third dying before reaching ten years in captivity. Table 36 computes data for all known specimens, including 35 (19/13/3) stillbirths, 68 animals of currently unknown status (import-

Table 36. Average longevity of white rhinoceros in captivity

Years in captivity	Imported animals		Captive births		Total	
0	21	(10/9/2)	74	( 35/ 34/5)	95	8%
1- 9	114	(45/69)	235	(122/113)	349	32%
10-19	134	(60/74)	153	(87/66)	287	26%
20-29	324	(131/193)	17	(10/7)	341	31%
30-39	32	(19/13)	-		32	3%
>39	1	(0/1)			1	0.1%

ed 17/16, captive born 24/11), one animal released into the wild, 21 animals in private collections in South Africa whose status is not up-to-date (imported 5/1, captive-born 12/3), as well as 681 specimens alive at the end of 1994.

Only a few specimens reached a great age, partly probably due to the fact that the entire captive population is still relatively young, with most animals dating from the 1970s. The only white rhinoceros to live for more than 40 years was the first female to come in captivity, Zuluana, in Pretoria from 29th July 1946 to 21st March 1987, or 40 years eight months. This is followed by three specimens from the northern subspecies, see Table 37.

### Births in captivity

A total of 479 white rhinos have been born in captivity since 1967. This shows that the species breeds well. The first birth occurred at

Pretoria Zoo, South Africa on 8th June 1967, but the mother was pregnant when she joined the collection. The first zoo-bred animal was born at the same zoo on 23rd October 1967. There have been only 35 (7%) stillbirths, which is rather low compared to the black rhinoceros.

While the southern subspecies breeds regularly, in the northern subspecies, only four pure births and one cross birth have been recorded at Dvur Kralove Zoo, Czech Republic. It was unexpected that there would be a major difference between the two forms. There are now only two reasonably sized groups of northern white rhinos, one at Dvur Kralove and the other at San Diego Wild Animal Park, together totalling just ten specimens of differing ages, which may affect the possibilities of breeding.

The births occurred in 22 countries throughout the world, see Table 38.

Table 37. Longevity of captive white rhinos dying in captivity

Sex	Place	Dates	Age		Total in days
			years	months	
Female	Pretoria	29 July 1946 - 21 March 1987	40	8	14,845
Female	Antwerp	7 April 1950 - 7 August 1985	35	9	12,906
Male	London	25 July 1955 - 25 June 1990	35	5	12,754
Male	San Diego	28 July 1957 - 28 January 1991	33	6	12,237

Table 38. Locations of births in the white rhinoceros (1967-1994)

Continent	No. of births		Year of first birth		No. of countries	Leading country
Africa	32	6.5%	1967	(South Africa)	2	South Africa: 31
Asia	68	14%	1978	(Japan)	5	Japan: 45
Australia	6	1.5%	1981	(Australia)	1	Australia: 6
Europe	128	26.5%	1971	(Germany)	10	UK: 54
N America	228	48%	1972	(USA)	2	USA: 226
S/C America	17	3.5%	1976	(Mexico)	2	Mexico: 9

### Countries:

Africa	South Africa, Tunisia
Asia	Israel, Japan, North Korea, Taiwan, Thailand
Australia	
Europe	Belgium, Bulgaria, Czech Republic, Denmark, France, Germany, Ireland, the Netherlands, Poland, UK
South/Central America	Dominican Republic, Mexico
North America	Canada, USA

Table 39. Collections where the southern white rhinoceros has been exhibited (1946-1994), arranged by country in each continent

Country	Total places	Year and place of first rhino	Largest (>5) No. (Zoo + Total No.)
<i>Africa</i>			
Egypt	2	1973 Alexandria	
Kenya	6	1947 Private	
Libya	1	1985 Tripoli	
Morocco	1	1977 Temara	
Mozambique	1	1968 Maputo	
South Africa	9	1946 Pretoria	Lichtenburg: 31
Tunisia	1	1974 Tunis	
Zimbabwe	2	1878 Expedition	
Total: 8 countries, 23 collections. First import 1878 into Zimbabwe			
<i>Asia</i>			
Abu Dhabi	1	1975 Al Ain	
China	8	1974 Beijing	
India	2	1971 Mysore	
Indonesia	3	1976 Jakarta	Bogor: 7
Israel	1	1973 Ramat-Gan	Ramat-Gan: 27
Japan	27	1966 Tokyo Ueno	Kyushu: 21
Malaysia	1	1982 Kuala Lumpur	
Myanmar	1	1964 Yangon	
North Korea	1	1985 Pyongyang	
Pakistan	1	1990 Lahore	
Qatar	1	1983 Doha	
Saudi Arabia	1	1986 Riyadh	
Singapore	1	1972 Singapore	
Taiwan	3	1970 Taipei	Taipei Leofoo: 20
Thailand	2	1981 Bangkok	
Total: 15 countries, 54 collections. First import 1964 into Myanmar			
<i>Australia</i>			
Australia	5	1981 Sydney	Dubbo: 12
New Zealand	3	1980 Auckland	Christchurch: 9
Total: 2 countries, 8 collections. First import 1980 into New Zealand			
<i>Europe</i>			
General	1	1966 Circus	
Austria	1	1991 Salzburg	
Belgium	3	1974 Antwerp	Genk: 6
Bulgaria	1	1986 Sofia	
Croatia	1	1987 Zagreb	
Czech Republic	6	1970 Dvur Kralove	Dvur Kralove: 18
Denmark	4	1971 Aalborg	Copenhagen: 9
France	10	1968 Thoiry	Thoiry: 6
Germany	28	1963 Berlin Zoo	Gelsenkirchen: 27
Greece	1	1990 Circus	
Hungary	2	1979 Veszprem	
Ireland	1	1976 Dublin	
Italy	9	1972 Torino	
Lithuania	1	1985 Kaunas	
Netherlands	4	1963 Rotterdam	Arnhem: 20
Poland	4	1971 Katowice	Katowice: 7
Portugal	1	1969 Lisbon	
Romania	1	1989 Calarasi	
Russia	3	1972 Kaliningrad	
Slovakia	1	1986 Bratislava	
Spain	8	1970 Barcelona	
Sweden	2	1965 Kolmarden	
Switzerland	2	1965 Zurich	
Ukraine	1	1972 Kiev	



Country	Total places	Year and place of first rhino	Largest (>5) No. (Zoo + Total No.)
UK	16	1962 Whipsnade	Whipsnade: 70
Total: 24 countries, 112 collections. First import 1962 into UK			
<i>North America</i>			
Canada	8	1963 Edmonton	Toronto: 9
<i>USA</i>			
General	2		
Alabama	1	1976 Birmingham	
Arizona	3	1963 Phoenix	Phoenix: 10
Arkansas	2	1975 Little Rock	
California	9	1962 San Diego	San Diego WAP: 109
DC	1	1981 Washington	
Florida	8	1965 Tampa	West Palm Beach: 36
Georgia	1	1970 Stockbridge	Stockbridge: 12
Idaho	2	1977 Idaho Falls	
Iowa	1	1973 Mitchellville	
Illinois	1	1962 Chicago Brookfield	
Hawaii	1	1973 Honolulu	
Kansas	1	1995 Salina	
Kentucky	1	1967 Louisville	Louisville: 8
Louisiana	4	1972 Monroe	
Maryland	1	1992 Baltimore	
Michigan	1	1972 IAE	IAE: 74
Mississippi	1	1974 Jackson	
Missouri	2	1972 Kansas City	
Nebraska	1	1966 Omaha	
New Hampshire	1	1978 Hudson	
New Jersey	1	1975 Jackson	Jackson: 32
New Mexico	1	1973 Albuquerque	
New York	2	1962 New York Bronx	
North Carolina	1	1976 Asheboro	
Ohio	5	1970 Toledo	Kings Island: 31
Oklahoma	3	1963 Oklahoma	
Oregon	1	1974 Winston	Winston: 10
Pennsylvania	2	1974 Philadelphia	
South Carolina	3	1974 Columbia	
South Dakota	1	1994 Sioux Falls	
Tennessee	2	1964 Memphis	Knoxville: 29
Texas	15	1968 Fort Worth	San Antonio: 15
Utah	1	1977 Salt Lake City	
Virginia	2	1973 Doswell	Doswell: 15
Washington	1	1992 Sequiem	
Wisconsin	2	1962 Milwaukee	
Total: 2 countries, 96 collections. First import 1962 into USA			
<i>South/Central America</i>			
Argentina	3	1975 Margarita	
Brazil	3	1972 Sao Paulo	
Colombia	1	1982 Medellin	
Cuba	1	1972 Havana	Havana: 7
Dominican Republic	1	1974 Santo Domingo	Santo Domingo: 11
Mexico	7	1975 Puebla	Puebla: 8
Puerto Rico	1	1981 Puerto Rico	
Uruguay	1	1985 Montevideo	
Venezuela	3	1975 Carabobo	Carabobo: 7
Total: 9 countries, 21 collections. First import 1972 into Brazil			
World total: 60 countries, 314 collections			

Table 40. Collections where the Northern White Rhinoceros has been exhibited (1947-1994), arranged by country in each continent

<i>Country</i>	<i>Total places</i>	<i>Year and place of first rhino</i>	<i>Largest (&gt;5) No. (Zoo + Total No.)</i>
<i>Africa</i>			
Kenya	1	1947 private	
Sudan	1	1949 Khartoum	
Total: 2 countries, 2 collections. First import 1947 into Kenya			
<i>Asia</i>			
Abu Dhabi	1	1973 Al Ain	
Saudi Arabia	1	1965 Riyadh	
Total: 2 countries, 2 collections. First import 1965 into Saudi Arabia			
<i>Europe</i>			
Belgium	1	1950 Antwerp	
Czech Republic	1	1975 Dvur Kralove	Dvur Kralove: 12
Germany	1	1963 Hannover	
UK	3	1955 London	
Total: 4 countries, 6 collections. First import 1950 into Belgium			
<i>North America</i>			
<i>USA</i>			
California	2	1979 San Diego	
DC	1	1956 Washington	
Missouri	1	1957 St Louis	
Total: 1 country, 4 collections. First import 1957 into USA			
World total: 9 countries, 14 collections.			

Table 41. Population changes in the white rhinoceros between 1850 and 1994. Numbers show total (male/female/sex unknown)

<i>Period</i>	<i>Imported animals</i>	<i>Captive births</i>	<i>Deaths</i>	<i>Total animals at end of period</i>	<i>Captive born population</i>
1850-1899	2 (0/0/2)		2 (0/0/2)	0	
1945-1949	4 (2/2)		1 (0/1)	3 (2/1)	
1950-1959	9 (4/5)			12 (6/6)	
1960-1969	94 (49/45)	2 (2/0)	12 (8/4)	96 (49/47)	2 (2/0)
1970-1979	467 (192/275)	150 (84/62/4)	116 (48/64/4)	597 (277/320)	104 (63/41)
1980-1989	31 (9/22)	247 (132/114/1)	224 (112/111/1)	651 (306/345)	215 (123/92)
1990-1994	19 (9/10)	80 (36/44)	69 (30/39)	681 (321/360)	265 (147/118)
Total	626 (265/359/2)	479 (254/220/5)	424 (198/219/7)		

### Chronological list of all known specimens of *Ceratotherium simum* in captivity

This is a list of all specimens of the southern and northern subspecies of the white rhinoceros kept in captivity, in chronological order. The first column gives the 'Studbook No.' according to Klös and Frese (1993) with data to December 1993 (plus a few numbers from previous editions). The second column gives the 'Status' (W: imported from the wild; B: born in captivity, B+: captive stillbirth). The third column 'Sex' (M: male; F: female; no entry: sex unknown). The fourth column is the 'History' of the animal and starts with the year of arrival or birth, followed by the name of the town where the collection is located. In case of transfer, this is followed by another year and locality. The column ends with a date if the animal died, or with a collection if the animal was presumed alive in 1995. The word *cottoni* appears at the end of the entry if this is a specimen from the northern subspecies *Ceratotherium simum cottoni*, all other specimens are presumed to be southern.

Studbook No.	Status	Sex	History
	W		1878 Zimbabwe: Selous 1878
	W		1892 Zimbabwe: Coryndon 1892
058	W	F	1946 Pretoria 1987
	W	M	1947 Kenya: Rumuruti 1963 Hannover 1964 Southampton 1967 unknown (?) <i>cottoni</i>
	W	F	1947 Kenya: Rumuruti (?) <i>cottoni</i>
955	W	M	1949 Pretoria 1962
015	W	M	1950 Antwerp 1968 <i>cottoni</i>
016	W	F	1950 Antwerp 1985 <i>cottoni</i>
956	W	F	1952 Pretoria 1963
019	W	M	1955 London 1986 Dvur Kralove 1990 <i>cottoni</i>
	W	F	1955 London 1964 <i>cottoni</i>
027	W	M	1956 Washington 1972 San Diego WAP 1975 <i>cottoni</i>
028	W	F	1956 Washington 1972 San Diego WAP 1979 <i>cottoni</i>
074	W	M	1957 St Louis 1972 San Diego/San Diego WAP 1991 <i>cottoni</i>
075	W	F	1957 St Louis 1972 San Diego WAP 1974 <i>cottoni</i>
	W	M	1962 Whipsnade 1962/63
020	W	F	1962 Whipsnade 1964 London 1986 Glasgow 1995
021	W	M	1962 Chester 1990 Romaneche
022	W	F	1962 Chester 1984
031	W	M	1962 Milwaukee 1988 Glen Rose
032	W	F	1962 Milwaukee 1985
033	W	F	1962 Milwaukee 1983
029	W	M	1962 Chicago 1988 Winston
030	W	F	1962 Chicago 1988 Winston
023	W	M	1962 New York 1974 New Orleans 1991
024	W	F	1962 New York 1974 New Orleans 1990
025	W	M	1962 Catskill
026	W	F	1962 Catskill 1992
052	W	M	1962 San Diego 1971 San Diego WAP 1983 International Animal Exchange 1984
053	W	F	1962 San Diego 1971 San Diego WAP 1976 Puebla
957	W	F	1963 Pretoria 1966
013	W	M	1963 Rotterdam 1983 Genk
014	W	F	1963 Rotterdam 1982 Genk
034	W	M	1963 Phoenix
035	W	F	1963 Phoenix 1979 Fujiwara 1979
036	W	M	1963 Oklahoma 1978 Winston 1979
037	W	F	1963 Oklahoma 1978 Died in transit 1978
001	W	M	1963 Berlin Zoo
002	W	F	1963 Berlin Zoo 1982 Munster 1984 Berlin Zoo 1992
958	W	M	1963 Pretoria 1963
048	W	M	1963 San Francisco 1987 San Diego 1987 San Diego WAP 1990 Kingwood 1995
049	W	F	1963 San Francisco 1987 San Diego 1987 Winston 1987
056	W	M	1963 Pretoria 1991 unknown (?)
388	W	M	1963 Edmonton 1983 Harbin

<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>	
389	W	F	1963 Edmonton 1983 Harbin	
054	W	M	1964 Khartoum 1965 Riyadh	<i>cottoni</i>
055	W	F	1964 Khartoum 1965 Riyadh	<i>cottoni</i>
003	W	M	1964 Berlin Tierpark 1986 Lodz	
004	W	F	1964 Berlin Tierpark 1970	
040	W	M	1964 Memphis 1990	
041	W	F	1964 Memphis 1973	
066	W	M	1964 Yangon	
067	W	F	1964 Yangon	
062	W	M	1965 Johannesburg 1975	
064	W	F	1965 Johannesburg	
017	W	M	1965 Zurich 1980 Augsburg	
018	W	F	1965 Zurich 1980 Augsburg	
011	W	M	1965 Kolmarden	
012	W	F	1965 Kolmarden	
006	W	F	1965 Dresden 1986	
050	W	M	1965 Los Angeles 1982 Fort Worth 1983 Llano 1989 Glen Rose	
051	W	F	1965 Los Angeles 1982 Fort Worth 1983 Llano 1989 Glen Rose 1994	
010	W	F	1965 Boras	
044	W	M	1965 Tampa 1991 unknown (?)	
045	W	F	1965 Tampa 1989	
009	W	M	1965 Boras	
005	W	M	1965 Dresden 1989 Berlin Tierpark	
057	W	M	1966 Pretoria 1982	
060	W	F	1966 Pretoria 1983 South Africa: Shenandoah 1986	
059	W	F	1966 Pretoria 1971	
046	W	M	1966 Calgary 1987	
047	W	F	1966 Calgary 1994	
959	W	F	1966 Pretoria 1967	
068	W	M	1966 Tokyo	
069	W	F	1966 Tokyo	
233	W	M	1966 Rapperswil	
234	W	F	1966 Rapperswil	
063	W	M	1966 Johannesburg 1984 South Africa: Marshalltown 1988	
065	W	F	1966 Johannesburg 1990	
038	W	M	1966 Omaha 1989	
039	W	F	1966 Omaha	
	W	M	1966 Kirby Misperton 1968 unknown (?)	
072	W	M	1967 Durbanville 1973	
073	W	F	1967 Durbanville 1980	
960	W	M	1967 Pretoria 1967	
007	W	M	1967 Gelsenkirchen 1968 Leipzig 1993 Bandholm 1994 Givskud 1995	
008	W	F	1967 Gelsenkirchen 1968 Leipzig 1993 Bandholm	
061	B	M	1967 Pretoria 1970 Laguna Hills 1974 unknown (?)	
042	W	M	1967 Jacksonville 1979 Kansas City 1983 Jacksonville 1984 Yulee 1989 International Animal Exchange (?)	
043	W	F	1967 Jacksonville 1984 Yulee 1992 International Animal Exchange 1992 Morelia	
070	W	M	1967 Whipsnade 1985 Kaunas	
071	W	F	1967 Whipsnade 1976 Dublin 1977 Burford	
	W	M	1967 Louisville 1968	
081	W	F	1967 Louisville 1985 Kings Island 1988 Columbus 1993 Cumberland 1994 Argentina	
086	W	M	1968 Thoiry 1974 Sigean	
087	W	F	1968 Thoiry 1974 Sigean	
077	W	M	1968 Duisburg	
078	W	F	1968 Duisburg	
082	W	M	1968 Fort Worth 1989 Glen Rose	
083	W	F	1968 Fort Worth 1989 Glen Rose	

Studbook No.	Status	Sex	History
248	W	M	1968 Bloemfontein
127	W	M	1969 Pretoria 1969 Cologne 1990 Dvur Kralove
133	W	M	1969 Mallorca
134	W	F	1969 Mallorca
314	W	M	1969 Sendai
315	W	F	1969 Sendai 1982
076	B	M	1969 Pretoria 1974 Antwerp
080	W	M	1969 Louisville 1985 Kings Island 1992 Baltimore
108	W	M	1969 Lisbon
109	W	F	1969 Lisbon
	W	M	1969 Gauhati
603	W	M	1970 Taipei
605	W	M	1970 Taipei
604	W	F	1970 Taipei 1982
606	W	F	1970 Taipei 1982
347	W	M	1970 Khartoum 1978 <i>cottoni</i>
110	W	M	1970 Dvur Kralove 1979 Lesna
112	W	F	1970 Dvur Kralove 1979 Lesna
084	W	M	1970 Barcelona
085	W	F	1970 Barcelona
204	W	M	1970 Laguna Hills 1988 unknown (?)
205	W	M	1970 Laguna Hills 1988 unknown (?)
206	W	F	1970 Laguna Hills 1979 International Animal Exchange (?)
207	W	F	1970 Laguna Hills 1979 Taipei Leofoo
113	W	F	1970 Dvur Kralove 1976 Liberec 1983 Cairo
114	W	F	1970 Dvur Kralove 1980 Usti
079	B	M	1970 Pretoria 1974 Antwerp 1986 Bogor 1986
088	W	M	1970 Whipsnade 1974 Colchester
089	W	M	1970 Whipsnade
090	W	M	1970 Whipsnade 1975 Glasgow
091	W	M	1970 Whipsnade 1975 Glasgow 1981 Paris
092	W	M	1970 Whipsnade 1975 Kiev 1993
093	W	M	1970 Whipsnade 1972 Copenhagen
094	W	M	1970 Whipsnade 1975
095	W	F	1970 Whipsnade 1976 Rotterdam 1982
096	W	F	1970 Whipsnade 1985 Kaunas
097	W	F	1970 Whipsnade 1976 Edinburgh
098	W	F	1970 Whipsnade 1975
099	W	F	1970 Whipsnade 1985 Montevideo
100	W	F	1970 Whipsnade 1978
101	W	F	1970 Whipsnade 1973
102	W	F	1970 Whipsnade 1991
103	W	F	1970 Whipsnade 1986 Sofia
104	W	F	1970 Whipsnade 1988 Dublin 1995
105	W	F	1970 Whipsnade
106	W	F	1970 Whipsnade 1986
107	W	F	1970 Whipsnade 1976
189	W	M	1970 Brownsville
190	W	F	1970 Brownsville
177	W	M	1970 Toledo 1984 Yulee
178	W	F	1970 Toledo 1984 Yulee 1988 Toledo 1991
122	W	M	1970 Hannover 1971 Mysore
123	W	F	1970 Hannover 1971 Berlin Tierpark 1971 Hannover 1981
180	W	M	1970 San Antonio
181	W	F	1970 San Antonio
	W	F	1970 Berlin Tierpark 1970
111	W	M	1970 Dvur Kralove 1980 Usti
115	W	F	1970 Dvur Kralove 1979 Al Ain 1981
116	W	M	1970 Warminster

Studbook No.	Status	Sex	History
117	W	M	1970 Warminster 1987 Bewdley 1988 Warminster 1989 Bewdley
118	W	M	1970 Warminster 1977 Woburn
119	W	F	1970 Warminster
120	W	F	1970 Warminster
121	W	F	1970 Warminster 1980 Dubbo 1988
193	W	M	1970 Woburn 1974 Hodenhagen 1980 Genk 1980 Unknown (?)
194	W	M	1970 Woburn
195	W	M	1970 Woburn 1980 Dubbo
196	W	F	1970 Woburn 1980 Dubbo
197	W	F	1970 Woburn
198	W	F	1970 Woburn
697	W	M	1970 Stockbridge 1975 International Animal Exchange 1976 Madison
696	W	F	1970 Stockbridge 1975 International Animal Exchange 1976 Madison
124	B	M	1971 Hannover 1972 Kaliningrad
182	W	F	1971 San Antonio
142	W	M	1971 San Diego WAP 1979 Canton
143	W	M	1971 San Diego WAP 1974 Toronto
144	W	M	1971 San Diego WAP 1972 St Louis 1973 Mitchellville 1993 Harwood
145	W	M	1971 San Diego WAP 1976 El Paso 1983 died in transit 1983
146	W	M	1971 San Diego WAP 1975 Columbus 1993 Memphis
	W	M	1971 San Diego WAP 1971
147	W	F	1971 San Diego WAP 1989 Glen Rose
148	W	F	1971 San Diego WAP 1975 Columbus 1993 Cumberland
149	W	F	1971 San Diego WAP 1973
150	W	F	1971 San Diego WAP 1996
151	W	F	1971 San Diego WAP 1979 San Diego 1979 Canton 1979
152	W	F	1971 San Diego WAP 1974 Toronto 1985
153	W	F	1971 San Diego WAP 1975 Phoenix
154	W	F	1971 San Diego WAP
155	W	F	1971 San Diego WAP 1988
156	W	F	1971 San Diego WAP 1976 El Paso 1983 San Diego WAP 1994 Leon 1996
157	W	F	1971 San Diego WAP
158	W	F	1971 San Diego WAP 1976
159	W	F	1971 San Diego WAP
	W	F	1971 San Diego WAP 1971
128	W	M	1971 Nuremberg 1988 South Africa: Keeley
129	W	F	1971 Nuremberg 1988 South Africa: Keeley
131	W	M	1971 Stukenbrock
132	W	F	1971 Stukenbrock 1972 Hilvarenbeek 1975
184	W	F	1971 Krefeld 1987 Cologne 1988 Krefeld 1993 St Pere
135	W	M	1971 Thoiry 1986
136	W	M	1971 Thoiry
137	W	M	1971 Thoiry
138	W	F	1971 Thoiry
952	B	F	1971 Pretoria 1971
351	W	F	1971 Prescott 1977 Dvur Kralove 1992 <i>cottoni</i>
163	W	M	1971 Aalborg 1990 South Africa: Sun City
164	W	F	1971 Aalborg 1990 Died in transit 1990
165	W	F	1971 Aalborg
166	W	F	1971 Aalborg
130	B	M	1971 Whipsnade 1973 Alexandria
191	W	M	1971 Houston
192	W	F	1971 Houston
200	W	M	1971 Katowice
201	W	F	1971 Katowice 1995
160	W	M	1971 Prague
161	W	F	1971 Prague
162	W	F	1971 Prague 1992 St Pere
139	W	M	1971 Copenhagen 1972 Whipsnade 1976 Edinburgh



<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
140	W	F	1971 Copenhagen
141	W	F	1971 Copenhagen 1993
277	W	F	1971 San Diego 1972 San Diego WAP
650	W	F	1971 San Diego 1972 St Louis 1973 Mitchellville 1983
187	W	M	1971 Fresno 1990 San Diego WAP
188	W	F	1971 Fresno 1994 San Diego WAP
125	W	M	1971 Arnhem 1985 Died in transit 1985
167	W	M	1971 Arnhem 1986 Bogor
168	W	M	1971 Arnhem 1974 Hodenhagen 1974
169	W	M	1971 Arnhem 1978 Gelsenkirchen 1979 Neuwied 1981
126	W	F	1971 Arnhem 1974 Hodenhagen 1974
170	W	F	1971 Arnhem 1979
171	W	F	1971 Arnhem
172	W	F	1971 Arnhem 1980
173	W	F	1971 Arnhem 1986 Bogor
174	W	F	1971 Arnhem
175	W	F	1971 Arnhem
183	W	M	1971 Krefeld 1993 La Barben
249	W	F	1971 Bloemfontein 1981
179	W	F	1971 Berlin Tierpark 1981 Usti 1988 Berlin Tierpark
239	W	M	1971 Hannover 1991 Hodenhagen 1992 St.Pere
185	W	M	1971 Mysore
186	W	F	1971 Mysore
250	W	M	1971 Madrid
251	W	F	1971 Madrid
607	W	F	1972 Colchester
379	W	M	1972 Stockbridge 1974 Columbia 1989 Yulee
463	W	M	1972 Stockbridge 1975 Little Rock 1990 Fort Worth
473	W	M	1972 Stockbridge 1974 Jackson 1988 Knoxville
380	W	F	1972 Stockbridge 1974 Columbia 1988 Kings Island 1992 Baltimore
381	W	F	1972 Stockbridge 1974 Columbia 1988 Toledo
464	W	F	1972 Stockbridge 1973 Kings Island 1975 Little Rock 1991 Fort Worth
474	W	F	1972 Stockbridge 1974 Jackson 1987
475	W	F	1972 Stockbridge 1974 Jackson
587	W	F	1972 Stockbridge 1974 West Palm Beach 1976 Philadelphia 1988 Knoxville 1991 Baker
386	W	M	1972 Monroe
387	W	F	1972 Monroe
336	W	M	1972 Redwood City 1988 Vallejo
337	W	F	1972 Redwood City 1988 Vallejo
400	W	M	1972 Burford
401	W	F	1972 Burford
551	W	F	1972 Kaliningrad
552	W	M	1972 Gelsenkirchen 1972 Kiev 1974
553	W	F	1972 Gelsenkirchen 1972 Kiev
199	W	F	1972 Cologne 1990 Dvur Kralove
208	W	F	1972 Dvur Kralove 1974 Ostrava
209	W	F	1972 Dvur Kralove 1980 Usti
210	W	F	1972 Dvur Kralove 1980 Wroclaw
211	W	F	1972 Dvur Kralove 1980 Katowice
	W	M	1972 Kansas City 1972 unknown (?)
318	W	F	1972 Kansas City 1983 Jacksonville
	W	F	1972 Kansas City 1972 unknown (?)
317	W	M	1972 Kansas City 1978
255	W	M	1972 Windsor 1993 Warminster
256	W	M	1972 Windsor 1979
257	W	M	1972 Windsor 1993 Warminster
258	W	F	1972 Windsor 1993 Warminster
259	W	F	1972 Windsor 1977

<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
260	W	F	1972 Windsor 1993 Warminster
261	W	F	1972 Windsor 1993 Warminster
262	W	F	1972 Windsor 1993 Warminster
202	B	M	1972 San Antonio 1987 Brownsville 1994 Johnson City
319	W	M	1972 San Roque 1976 Singapore
221	W	M	1972 Hilvarenbeek
222	W	F	1972 Hilvarenbeek 1979 Osnabruck
225	W	F	1972 Hilvarenbeek
394	W	M	1972 Torino 1987 Zagreb
395	W	F	1972 Torino 1987 Zagreb
203	B	M	1972 San Diego WAP 1976 Tucson
338	W	M	1972 San Roque 1980
339	W	M	1972 San Roque 1980
383	W	M	1972 Sao Paulo
353	W	M	1972 Prescott 1993
354	W	M	1972 Prescott 1982 Woburn
355	W	M	1972 Prescott 1985 Woburn
352	W	F	1972 Prescott
356	W	F	1972 Prescott 1973 Bewdley
357	W	F	1972 Prescott 1973
308	W	M	1972 Havana
309	W	F	1972 Havana
215	W	M	1972 Brownsville 1975
216	W	F	1972 Brownsville 1976
674	W	M	1972 Belo Horizonte 1979
675	W	F	1972 Belo Horizonte
212	B	F	1972 San Diego WAP 1973
263	W	F	1972 Singapore 1988
213	B	M	1972 San Diego WAP 1974 Toronto 1988 Calgary
252	W	M	1972 Blackpool 1992 Paignton
253	W	F	1972 Blackpool 1991 La Barben
254	W	F	1972 Blackpool 1991 La Barben
291	W	F	1972 Pretoria 1974 Antwerp
292	W	F	1972 Pretoria 1974 Antwerp 1986 Bogor 1986
419	W	M	1972 International Animal Exchange 1983
420	W	M	1972 International Animal Exchange 1983 San Diego WAP 1987 San Diego 1988 Guadalajara
421	W	M	1972 International Animal Exchange 1982
422	W	M	1972 International Animal Exchange 1979 Toluca
433	W	M	1972 International Animal Exchange 1990 Bangkok Safari
450	W	M	1972 International Animal Exchange 1981
423	W	F	1972 International Animal Exchange 1979 Fujiwara
424	W	F	1972 International Animal Exchange 1979 Taipei Leofoo 1984
425	W	F	1972 International Animal Exchange 1983 Deland (?)
426	W	F	1972 International Animal Exchange 1979 Fujiwara
427	W	F	1972 International Animal Exchange 1979 Fujiwara 1990
428	W	F	1972 International Animal Exchange 1979 Fujiwara
429	W	F	1972 International Animal Exchange 1990 Bangkok Safari
430	W	F	1972 International Animal Exchange 1979 Toluca 1979
431	W	F	1972 International Animal Exchange 1990 Bangkok Safari
432	W	F	1972 International Animal Exchange 1980 Toluca
434	W	F	1972 International Animal Exchange 1979 Taipei Leofoo
435	W	F	1972 International Animal Exchange 1979 Gunma 1983 Nagasaki Safari 1987
436	W	F	1972 International Animal Exchange 1979 Gunma
437	W	F	1972 International Animal Exchange 1979 Gunma 1982 Sendai
438	W	F	1972 International Animal Exchange 1983
439	W	F	1972 International Animal Exchange 1979 unknown (?)

<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
440	W	F	1972 International Animal Exchange 1979 unknown (?)
441	W	F	1972 International Animal Exchange 1979 unknown (?)
442	W	F	1972 International Animal Exchange 1979 unknown (?)
443	W	F	1972 International Animal Exchange 1979 unknown (?)
444	W	F	1972 International Animal Exchange 1977 unknown 1980
445	W	F	1972 International Animal Exchange 1977
446	W	F	1972 International Animal Exchange 1977
447	W	F	1972 International Animal Exchange 1978
451	W	F	1972 International Animal Exchange 1978
452	W	F	1972 International Animal Exchange 1974 Knoxville
453	W	F	1972 International Animal Exchange 1974 Knoxville
558	W	M	1972 West Palm Beach 1987
559	W	M	1972 West Palm Beach
560	W	M	1972 West Palm Beach 1981 Clifton
561	W	M	1972 West Palm Beach 1987
562	W	M	1972 West Palm Beach 1981
563	W	F	1972 West Palm Beach
564	W	F	1972 West Palm Beach 1980
565	W	F	1972 West Palm Beach 1981 Hudson 1983 Kings Island 1987 Asheboro
566	W	F	1972 West Palm Beach
567	W	F	1972 West Palm Beach 1981 Clifton 1988 Guadalajara
568	W	F	1972 West Palm Beach 1984
569	W	F	1972 West Palm Beach
570	W	F	1972 West Palm Beach 1981 Clifton
616	W	M	1972 Jacksonville 1974 unknown (?)
615	W	F	1972 Jacksonville 1974 unknown (?)
214	B	M	1973 Whipsnade 1974 Beijing
349	W	M	1973 Honolulu 1984
350	W	F	1973 Honolulu 1984
218	B	F	1973 San Diego WAP 1974 Toronto
217	B	M	1973 Whipsnade 1975
238	B	F	1973 San Diego WAP 1976 Tucson
348	W	M	1973 Khartoum 1990 San Diego WAP <i>cottoni</i>
363	W	M	1973 Rockton
364	W	M	1973 Rockton
365	W	F	1973 Rockton 1989 Toronto 1992 Rockton 1995
366	W	F	1973 Rockton
219	B	F	1973 San Diego WAP 1974 Philadelphia 1988 Glen Rose
396	B	M	1973 Pretoria 1974 Lichtenburg 1975
269	W	M	1973 Laguna Hills 1980 died in transit 1980
270	W	M	1973 Laguna Hills 1980 died in transit 1980
271	W	M	1973 Laguna Hills 1974 Winston 1974
272	W	M	1973 Laguna Hills 1981
264	W	F	1973 Laguna Hills 1979 Mountain Home
265	W	F	1973 Laguna Hills 1979 Taipei Leofoo
266	W	F	1973 Laguna Hills 1979 Taipei Leofoo 1984
267	W	F	1973 Laguna Hills 1979
273	W	F	1973 Laguna Hills 1979 Taipei Leofoo
	B+		1973 San Diego WAP 1973
305	W	M	1973 Langato 1988 Bussolengo 1992 Cairo
306	W	F	1973 Langato 1988 Bussolengo
220	B	M	1973 San Diego WAP 1974 Philadelphia 1988 Toledo
227	B	F	1973 Blackpool 1974 Whipsnade 1974 Beijing
403	W	F	1973 San Roque 1976 Gelsenkirchen 1977 Munster
554	W	M	1973 Gelsenkirchen 1973 Rostov
555	W	F	1973 Gelsenkirchen 1973 Rostov
223	W	F	1973 Hilvarenbeek
224	W	F	1973 Hilvarenbeek
371	W	M	1973 Dvur Kralove 1974 Ostrava

<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
240	W	F	1973 Ramat-Gan 1979
241	W	F	1973 Ramat-Gan
244	W	M	1973 Ramat-Gan 1994
245	W	M	1973 Ramat-Gan
246	W	M	1973 Ramat-Gan
247	W	M	1973 Ramat-Gan 1988 South Africa: Krugersdorp
242	W	F	1973 Ramat-Gan
243	W	F	1973 Ramat-Gan
310	W	M	1973 Havana
311	W	F	1973 Havana
312	W	F	1973 Havana
313	W	F	1973 Havana
1106	W	M	1973 Jackson NJ
	W	M	1973 Jackson NJ (?)
	W	M	1973 Jackson NJ (?)
	W	M	1973 Jackson NJ (?)
	W	M	1973 Jackson NJ (?)
1101	W	F	1973 Jackson NJ
1102	W	F	1973 Jackson NJ
1103	W	F	1973 Jackson NJ
1104	W	F	1973 Jackson NJ
1105	W	F	1973 Jackson NJ
	W	F	1973 Jackson NJ (?)
	W	F	1973 Jackson NJ (?)
	W	F	1973 Jackson NJ (?)
631	W	M	1973 Doswell 1977 Center Hill 1981 unknown (?)
638	W	M	1973 Doswell 1978 Barquisimeto
397	W	F	1973 Doswell 1976 Memphis
632	W	F	1973 Doswell 1977 Center Hill 1981 Puerto Rico
637	W	F	1973 Doswell 1978 Barquisimeto
753	W	M	1973 Doswell 1994 Cumberland 1994 Sioux Falls
754	W	M	1973 Doswell 1994 Louisville
758	W	M	1973 Doswell 1977 Idaho Falls 1979 Aldergrove 1981
759	W	M	1973 Doswell 1976 Penticton 1980
751	W	F	1973 Doswell 1990
752	W	F	1973 Doswell 1981
757	W	F	1973 Doswell 1977 Idaho Falls 1979 Aldergrove
359	W	M	1973 Albuquerque
358	W	F	1973 Albuquerque
852	W	M	1973 Bewdley
853	W	F	1973 Bewdley
345	W	F	1973 Al Ain 1978
	B		1974 Whipsnade 1974
340	W	M	1974 Munster 1995
341	W	F	1974 Munster 1976
268	B	F	1974 Laguna Hills 1988 Unknown (?)
410	W	M	1974 Kings Island 1980 International Animal Exchange 1980
411	W	M	1974 Kings Island 1980 International Animal Exchange (?)
412	W	M	1974 Kings Island 1979 Taipei Leofoo
413	W	M	1974 Kings Island 1980 Hudson 1987 Asheboro
414	W	M	1974 Kings Island 1979 Taipei Leofoo
415	W	M	1974 Kings Island 1980 International Animal Exchange 1982
580	W	M	1974 Kings Island 1974 New Orleans 1991
687	W	M	1974 Kings Island 1974 Norfolk
416	W	F	1974 Kings Island 1994 Cumberland
417	W	F	1974 Kings Island 1994 Cumberland
418	W	F	1974 Kings Island 1994 Cumberland
579	W	F	1974 Kings Island 1974 New Orleans 1992
686	W	F	1974 Kings Island 1974 Norfolk

*cottoni*

*Ceratotherium simum*

<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
477	W	M	1974 Santo Domingo 1993
479	W	M	1974 Santo Domingo 1995
478	W	F	1974 Santo Domingo
480	W	F	1974 Santo Domingo
457	W	M	1974 Bandholm 1985
458	W	F	1974 Bandholm
280	B	M	1974 San Diego WAP 1975 Winston 1994 Harwood
281	B	M	1974 San Diego WAP 1975 Winston 1978 Almo 1978
282	B	F	1974 San Diego WAP 1975 Winston 1987
235	W	M	1974 Rio de Janeiro 1991
236	W	F	1974 Rio de Janeiro 1993
	B	F	1974 San Diego WAP 1974
573	W	M	1974 St Louis 1976 Asheboro
574	W	F	1974 St Louis 1976 Asheboro
618	W	M	1974 Knoxville 1988 Baker
619	W	F	1974 Knoxville
620	W	F	1974 Knoxville 1988 Brownsville
228	W	M	1974 Arnhem 1996
229	W	M	1974 Arnhem
176	W	F	1974 Arnhem 1975
230	W	F	1974 Arnhem
	B		1974 Whipsnade 1974
459	W	M	1974 Tunis 1990
460	W	M	1974 Tunis
461	W	F	1974 Tunis
462	W	F	1974 Tunis
283	B	F	1974 San Diego WAP 1975 Winston 1976
284	B	M	1974 San Diego WAP/Zoo 1983 Kings Island 1983 Deland (?)
226	B	F	1974 Whipsnade 1986 Winchester 1988 Whipsnade 1990 Romaneche
	B+		1974 Whipsnade 1974
278	B	M	1974 Whipsnade 1976 Gänserndorf 1979 Gelsenkirchen 1982 Neuwied 1984 Rome Grunvald
279	B	M	1974 Whipsnade 1976 Gelsenkirchen 1976 Dvur Kralove 1976 Liberec 1977
285	B	M	1974 San Diego WAP/Zoo 1983 International Animal Exchange (?)
360	W	M	1974 Munich 1991 Salzburg
361	W	F	1974 Munich 1991 Salzburg
362	W	F	1974 Munich 1991 Salzburg
289	B	F	1974 San Diego WAP 1977 died in transit 1977
384	W	F	1974 Sao Paulo
231	B	F	1974 Copenhagen 1976 Bandholm
232	B	M	1974 Copenhagen 1976 Bandholm 1991
302	W	M	1974 South Africa: Villiersdorp 1974
303	W	F	1974 South Africa: Villiersdorp 1980 Durban 1982
304	W	F	1974 South Africa: Villiersdorp 1980 Durban
390	W	M	1974 Kings Island 1975 Jacksonville
465	W	M	1974 Kings Island 1974 Baker 1988 Knoxville
469	W	M	1974 Kings Island 1976 Birmingham
	W	M	1974 Kings Island 1974 Tulsa 1975
391	W	F	1974 Kings Island 1975 Jacksonville 1992 Yulee
392	W	F	1974 Kings Island 1975 Jacksonville 1993 Waco
466	W	F	1974 Kings Island 1974 Baker
467	W	F	1974 Kings Island 1974 Baker 1991 Knoxville
470	W	F	1974 Kings Island 1976 Birmingham
471	W	F	1974 Kings Island 1976 Birmingham
	W	F	1974 Kings Island 1974 Tulsa 1975
491	W	M	1974 Hodenhagen
492	W	M	1974 Hodenhagen 1981 Krechting 1986 Riyadh
494	W	F	1974 Hodenhagen
495	W	F	1974 Hodenhagen 1980 Genk
496	W	F	1974 Hodenhagen

<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>	
237	B	F	1975 San Antonio 1975	
320	W	M	1975 Gänserndorf 1979 Gelsenkirchen 1986 Bogor	
274	W	F	1975 Barcelona 1996	
468	B	M	1975 Phoenix 1979 Kumamoto	
307	W	F	1975 Langato 1977 Dvur Kralove 1980 Wroclaw 1985	
288	B	M	1975 San Diego WAP 1976 Puebla	
343	W	M	1975 Emmen	
344	W	F	1975 Emmen	
369	W	M	1975 Dortmund 1993	
370	W	F	1975 Dortmund 1983	
299	W	M	1975 Margarita 1979 Barquisimeto 1984	
300	W	M	1975 Margarita 1979 Barquisimeto 1979	
301	W	F	1975 Margarita 1979 Barquisimeto 1985	
321	W	M	1975 Carabobo 1986	
322	W	M	1975 Carabobo	
323	W	M	1975 Carabobo 1977 Caracas	
324	W	F	1975 Carabobo 1977 Caracas	
325	W	F	1975 Carabobo	
326	W	F	1975 Carabobo	
327	W	F	1975 Carabobo	
513	W	M	1975 Miyazaki 1978 Kobe	
519	W	M	1975 Miyazaki 1978 Wakayama 1981 Bangkok	
521	W	M	1975 Miyazaki 1985 Izu 1986	
522	W	M	1975 Miyazaki 1978	
512	W	F	1975 Miyazaki 1978 Kobe	
520	W	F	1975 Miyazaki 1978 Wakayama 1981 Bangkok	
523	W	F	1975 Miyazaki 1983 Nagasaki Bio	
524	W	F	1975 Miyazaki 1986 Shenyang 1986	
525	W	F	1975 Miyazaki 1985 Izu 1995	
526	W	F	1975 Miyazaki 1987 Shanghai 1990	
527	W	F	1975 Miyazaki 1987 Shanghai	
528	W	F	1975 Miyazaki 1987 Shenyang	
276	B	M	1975 Laguna Hills 1976 died in transit 1976	
372	W	M	1975 Dvur Kralove	<i>cottoni</i>
373	W	M	1975 Dvur Kralove 1989 San Diego WAP	<i>cottoni</i>
374	W	F	1975 Dvur Kralove 1989 San Diego WAP	<i>cottoni</i>
375	W	F	1975 Dvur Kralove 1982	<i>cottoni</i>
376	W	F	1975 Dvur Kralove 1989 San Diego WAP	<i>cottoni</i>
377	W	F	1975 Dvur Kralove	<i>cottoni</i>
482	B	F	1975 Jackson NJ 1977 Pittsburgh	
409	B	F	1975 Columbus 1979 Gelsenkirchen 1979	
481	B	M	1975 Jackson NJ 1977 Pittsburgh	
346	W	M	1975 Al Ain	
483	W	M	1975 Puebla	
484	W	F	1975 Puebla	
704	W	F	1975 Stockbridge 1976 International Animal Exchange 1979 Kumamoto	
286	B	M	1976 San Diego WAP 1977 died in transit 1977	
287	B	M	1976 San Diego WAP 1977 died in transit 1977	
333	B	F	1976 San Diego WAP 1977 died in transit 1977	
334	B	F	1976 San Diego WAP 1976	
	B	M	1976 San Diego WAP 1976	
	B+	F	1976 San Diego WAP 1976	
275	B	F	1976 San Antonio 1978 unknown (?)	
646	B	F	1976 Puebla 1979	
545	B	F	1976 San Diego WAP 1977 Salt Lake City 1980	
609	W	M	1976 Surabaja	
608	W	F	1976 Surabaja	
510	W	M	1976 Fukuoka	
511	W	F	1976 Fukuoka	
294	W	M	1976 Lichtenburg 1980 South Africa: Shenandoah	
295	W	M	1976 Lichtenburg 1982 South Africa: Shenandoah 1983 South Africa: Middel-	

Studbook No.	Status	Sex	History
			burg 1986
296	W	F	1976 Lichtenburg
297	W	F	1976 Lichtenburg 1984
298	B	M	1976 Pretoria 1978 South Africa: Nylstroom 1978
316	B	M	1976 Hilvarenbeek 1979 Osnabruck
713	W	M	1976 Jakarta
714	W	F	1976 Jakarta
335	B	M	1976 San Diego WAP 1977 Salt Lake City
405	W	M	1976 Lichtenburg 1990 South Africa: Middelkop
406	W	F	1976 Lichtenburg
407	W	F	1976 Lichtenburg
328	B	F	1976 Whipsnade 1977 Dublin 1988 Whipsnade 1988
329	B	F	1976 Whipsnade
330	B	M	1976 Whipsnade 1977 Dublin
342	B	F	1976 Whipsnade 1981 Sydney 1981 Dubbo 1984
393	B	M	1976 Edinburgh 1979
690	B	F	1976 Jackson NJ 1978 International Animal Exchange 1979 Taipei Leofoo
529	B	M	1976 San Diego WAP 1978 unknown (?)
398	B	M	1976 San Antonio 1978 unknown (?)
385	W	M	1976 Johannesburg
382	B	M	1976 Copenhagen 1979 Givskud 1994 released
677	B	M	1977 Jackson NJ 1979 International Animal Exchange 1979 Fujiwara 1991 Morioka
505	W	M	1977 Krechting 1980 Heidelberg
506	W	F	1977 Krechting 1980 Heidelberg
507	W	F	1977 Krechting 1981
717	W	M	1977 Temara
716	W	F	1977 Temara
408	B	M	1977 Lichtenburg 1991
368	W	M	1977 Langato 1980 Bussolengo
367	W	F	1977 Langato 1980 Bussolengo
404	B	M	1977 Munster 1993 Fuengirola
498	W	M	1977 Yamaguchi 1980 [Tokyo Safeways] 1984 Nasu
499	W	M	1977 Yamaguchi 1986
500	W	M	1977 Yamaguchi
501	W	F	1977 Yamaguchi
502	W	F	1977 Yamaguchi 1992 Morioka
503	W	F	1977 Yamaguchi
655	B	F	1977 Laguna Hills 1980 unknown (?)
804	W	M	1977 Izu
805	W	F	1977 Izu
454	B	M	1977 International Animal Exchange 1978
886	W	M	1977 Pistoia
887	W	F	1977 Pistoia
575	B	F	1977 Asheboro 1988 Knoxville
734	W	M	1977 Kyushu 1983
735	W	M	1977 Kyushu 1988 Kaohsiung 1989 Shenyang
736	W	M	1977 Kyushu 1984 Okinawa
737	W	M	1977 Kyushu
738	W	M	1977 Kyushu 1984 Himeji
739	W	F	1977 Kyushu
740	W	F	1977 Kyushu
741	W	F	1977 Kyushu
742	W	F	1977 Kyushu
746	W	F	1977 Kyushu 1982 Fujiwara
534	B	M	1977 San Diego WAP 1977 San Jose 1979 Gänserndorf 1980 Gelsenkirchen 1988
599	B	F	1977 El Paso 1983 San Diego WAP 1986 Aldergrove
634	W	M	1977 Morelia
656	B	F	1977 Laguna Hills (?) unknown (?)
456	B	F	1977 International Animal Exchange 1977



Studbook No.	Status	Sex	History
535	B	M	1977 San Diego WAP 1979 Kaohsiung
455	B	M	1977 International Animal Exchange 1978
536	B	M	1977 San Diego WAP 1979 Gunma 1980 [Elsa] 1983 Nagasaki Bio
537	B	M	1977 San Diego WAP 1979 Gunma
556	W	M	1977 Fasano
557	W	F	1977 Fasano
476	B	F	1977 Dvur Kralove <i>cottoni x simum</i>
712	B	M	1977 Prescott 1988 Whipsnade 1988 Prescott 1990 Aalborg 1990 Givskud
402	B	M	1977 Arnhem 1979 Stolberg
538	B	F	1977 San Diego WAP 1979 Kaohsiung
683	B	M	1977 Jackson NJ 1979 Fujiwara
448	B	F	1977 Lichtenburg 1978
472	B	F	1977 Whipsnade 1981 Sydney 1981 Dubbo 1984
622	B	M	1978 Knoxville 1979 International Animal Exchange 1979
571	B	M	1978 Copenhagen 1979 Givskud 1980
657	B	M	1978 Laguna Hills 1978
595	W	M	1978 Wakayama 1987 Onuma
596	W	M	1978 Wakayama 1982 Nasu
597	W	M	1978 Wakayama 1995
598	W	M	1978 Wakayama
591	W	F	1978 Wakayama 1987 Onuma
592	W	F	1978 Wakayama 1991 Morioka 1991
593	W	F	1978 Wakayama 1984 Himeji 1989 Yokohama 1990 Tensin
594	W	F	1978 Wakayama
682	B	M	1978 Jackson NJ 1979 Fujiwara 1980
449	B	M	1978 Lichtenburg 1982 South Africa: Shenandoah
530	B	F	1978 Dvur Kralove 1979 Veszprem 1982
621	B	M	1978 Knoxville 1979 Mountain Home 1979
514	B	M	1978 Miyazaki 1986 Kagoshima
539	B	M	1978 San Diego WAP 1979 Gunma 1989
658	B	F	1978 Laguna Hills 1978
515	B	F	1978 Miyazaki 1985 Izu 1991
516	B	M	1978 Miyazaki 1987 Shanghai
489	B	F	1978 Whipsnade
517	B	F	1978 Miyazaki 1982
	B+	F	1978 San Diego WAP 1978
518	B	F	1978 Miyazaki 1986 Kagoshima
508	W	M	1978 Einbeck
659	B	M	1978 Laguna Hills 1985 unknown (?)
486	B	M	1978 Hilvarenbeek 1982 Krechting (?) unknown (?)
487	B	M	1978 Ramat-Gan
660	B	F	1978 Laguna Hills 1978 Hudson 1979 died in transit 1979
678	W	M	1978 International Animal Exchange 1979 Fujiwara
679	W	M	1978 International Animal Exchange 1979 Fujiwara 1979
680	W	M	1978 International Animal Exchange 1979 Fujiwara 1985
681	W	M	1978 International Animal Exchange 1979 Fujiwara 1982 Kyushu 1983 Tohoku
695	W	F	1978 International Animal Exchange 1980
776	B	F	1978 Puebla 1982
485	B	M	1978 Whipsnade 1980
635	W	F	1978 Morelia 1990
493	B	M	1978 Hodenhagen 1981 unknown (?)
488	B	F	1978 Hilvarenbeek 1980
1018	B	F	1978 Phoenix 1979 unknown (?)
531	B	M	1978 Dvur Kralove 1980 Wroclaw
572	B	M	1979 Copenhagen 1980 Gänserndorf 1980 Gelsenkirchen 1988 Died in transit 1988
1030	B+	M	1979 Jacksonville 1979
533	B	F	1979 Jacksonville 1989 Yulee
661	B	M	1979 Laguna Hills 1979
540	B	F	1979 San Diego WAP 1980 Auckland 1993 Christchurch 1993
577	B	M	1979 Warminster

Studbook No.	Status	Sex	History
547	W	F	1979 Gunma 1994
490	B	M	1979 Whipsnade 1980
541	B	M	1979 San Diego WAP 1980 Auckland
612	B	F	1979 West Palm Beach 1989 Houston
549	B	M	1979 San Antonio 1979 Moscow 1980
633	B	M	1979 Center Hill 1982
793	B+	F	1979 Knoxville 1979
755	B	M	1979 Doswell 1981 Washington 1983 Doswell 1994 Columbus
542	B	F	1979 San Diego WAP 1980 Salt Lake City
543	B	M	1979 San Diego WAP 1981 International Animal Exchange 1981
719	B	M	1979 Jackson NJ 1982 International Animal Exchange 1986
694	B	M	1979 Jackson NJ 1981 International Animal Exchange 1981
544	B	F	1979 San Diego WAP 1981 International Animal Exchange 1981
497	B	M	1979 Ramat-Gan
578	B	M	1979 Warminster 1982 Budapest
756	B	F	1979 Doswell 1981 Washington 1983
611	B	M	1979 West Palm Beach 1982 Mitchellville 1982 Davis
924	B	F	1979 Memphis 1979
	B+	M	1979 Ramat-Gan 1979
720	B	M	1979 Jackson NJ 1982 International Animal Exchange (?)
584	B	F	1979 International Animal Exchange 1980
509	B	M	1979 Munster 1980
504	B	F	1979 Whipsnade 1981 Paignton
610	B	M	1979 West Palm Beach 1988
670	W	M	1979 Madrid 1982 Cairo 1986
671	W	F	1979 Madrid 1982 Cairo
550	B	M	1979 Santo Domingo
644	B	M	1979 Arnhem 1979
705	B	F	1979 Kumamoto
582	B	F	1979 Toronto 1989 Rockton 1992 Toronto
636	B	F	1979 Morelia 1985 Mexico City 1990
651	B	F	1979 Edinburgh 1981 Paris
548	B	M	1979 Gunma 1983 Nagasaki Safari 1991 unknown (?)
546	B	F	1979 Gunma 1984
602	B	F	1979 Taipei Lefoo
588	B	M	1979 Knoxville 1980 died in transit 1980
589	B	M	1979 Kings Island 1980 Schwerin
532	B	M	1979 Whipsnade 1981 Paignton
613	B	F	1979 West Palm Beach 1981 [various dealers] 1994 Alvin
601	B	M	1979 Taipei Lefoo
1058	B+	M	1980 Kings Island 1980
692	B	F	1980 Jackson NJ 1981 Medellin (?)
	W	M	1980 USA: Carson & Barnes 1994 Jackson NJ
711	B	M	1980 Tunis
583	B	F	1980 San Antonio 1980 Schwerin
745	B	M	1980 Kyushu 1982 Fujiwara 1990 Yokohama 1991 Fujiwara
585	B	F	1980 Lichtenburg 1981 Potgietersrus 1990 Lichtenburg
693	B	F	1980 Jackson NJ 1981 International Animal Exchange 1982 Tulsa 1995 Jakarta
586	B	M	1980 Lichtenburg 1981 Potgietersrus 1985 unknown (?)
647	B	M	1980 San Diego WAP 1981 Taiyuan 1981
743	B	F	1980 Kyushu 1983
732	W	M	1980 Tohoku 1981
731	W	F	1980 Tohoku
630	B	M	1980 Dvur Kralove <i>cottoni</i>
581	B	M	1980 Hohenhausen 1985 Tripoli
623	B	F	1980 Knoxville 1982 International Animal Exchange 1982
662	B	M	1980 Laguna Hills 1981 La Plata
590	B	F	1980 Kings Island 1981 La Plata
600	B	M	1980 Whipsnade 1981 Werribee
750	W	F	1980 Doswell 1994 Cumberland
691	B	F	1980 Grand Prairie 1982 Tulsa

<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
614	B	F	1980 Whipsnade 1981 Werribee 1989 Dubbo
648	B	F	1980 San Diego WAP 1981 Havana
649	B	F	1980 San Diego WAP 1981 Erfurt
624	B	F	1980 West Palm Beach
617	B	M	1980 Taipei Lefoo 1980
707	W	M	1980 Jackson
728	B	F	1980 Gunma
628	B	M	1980 Hilvarenbeek 1982 unknown (?)
764	W	M	1980 Tobu
765	W	F	1980 Tobu
785	W	F	1980 Sprintmont 1983 Genk
698	B	F	1980 International Animal Exchange 1981 Miami 1981
699	B	F	1980 International Animal Exchange 1981 Miami 1981
642	B	F	1981 Wakayama 1989 Shizuoka
715	B	M	1981 Antwerp 1983 died in transit 1983
629	B+	M	1981 Hilvarenbeek 1981
626	B	F	1981 Knoxville 1981 Haines City 1983
666	B+	F	1981 San Diego WAP 1981
672	B	F	1981 Lichtenburg 1982 Potgietersrus 1989
625	B	M	1981 West Palm Beach
641	B	F	1981 Ramat-Gan
733	W	M	1981 Iwaki 1984 Nasu 1985 Hokkaido
667	B	F	1981 San Diego WAP 1982 Taiyuan
627	B	M	1981 Memphis 1982 Erfurt
727	B	M	1981 Gunma 1989 Choushun
640	B	M	1981 Ramat-Gan 1988 South Africa: Mica Hope
718	B	M	1981 Jackson NJ 1982 International Animal Exchange 1982 Tulsa
684	B	M	1981 Katowice 1983 Gdansk 1986
643	B	F	1981 Arnhem
639	B	F	1981 West Palm Beach 1983
747	B	F	1981 Dubbo 1981
668	B	M	1981 San Diego WAP 1982 Taiyuan
663	B	M	1981 Laguna Hills (?) unknown (?)
645	B	M	1981 Genk
664	B	M	1981 Laguna Hills 1982 Gelsenkirchen 1984 Rome
700	B	F	1981 Phoenix 1982 International Animal Exchange 1982
652	B	F	1981 Warminster 1982 Givskud
777	B	M	1981 Puebla
653	B	F	1981 Warminster 1982 Givskud
654	B	F	1981 Whipsnade
1031	B	F	1981 Jacksonville 1981
701	B	M	1981 San Diego WAP 1982 Rome
665	B	F	1981 Whipsnade 1984
706	B	M	1981 Hudson 1982 unknown (?)
703	B	F	1981 Clifton
702	B	M	1981 Clifton 1982
669	B	M	1981 Munster 1984 Liberec
676	B	M	1981 Knoxville 1982 Brunkensen 1984 Halle 1986 Leipzig 1991 Salzburg
870	W	F	1982 Al Ain 1989
673	B	M	1982 Lichtenburg 1983 South Africa: Boksburg
729	B	M	1982 Gunma 1983 Nagasaki Safari 1990
730	B	F	1982 Gunma 1989 died in transit 1989/784
744	B	M	1982 Kyushu
685	B	M	1982 West Palm Beach
780	B	M	1982 Lichtenburg 1983 South Africa: Boksburg
710	B	M	1982 Morelia 1985 Mexico City
883	B	M	1982 Santo Domingo 1983
688	B	M	1982 San Diego WAP 1983 Medellin (?)
689	B+	M	1982 San Diego WAP 1982
722	B	F	1982 International Animal Exchange 1987
721	B	F	1982 International Animal Exchange 1987

Studbook No.	Status	Sex	History
778	B	F	1982 Puebla 1982
709	B	M	1982 Hodenhagen 1983
723	B	F	1982 International Animal Exchange 1984
749	B	M	1982 Edinburgh 1983 Doha
	W	F	1982 Kuala Lumpur 1982
763	B	M	1982 San Antonio 1983 Miami 1984 Plain Dealing (?)
773	B	F	1982 San Diego WAP 1983 Brunkensen 1985 Halle 1992 Berlin Tierpark
708	B	M	1982 Whipsnade 1982
724	B	F	1982 Taipei Lefoo
783	B	M	1982 San Diego WAP 1986 San Diego 1987 Gentry (?) Unknown
768	B	F	1982 Wakayama 1989
725	B	M	1982 Taipei Lefoo 1984
760	W	F	1982 Bloemfontein
766	B	M	1982 Ramat-Gan 1989 Sandton
726	B	F	1982 Taipei Lefoo 1982
748	B	M	1982 Toronto 1987 Granby
761	B	M	1982 Whipsnade 1983 Doha
762	B	F	1982 Taipei Lefoo 1984
767	B	F	1982 Hilvarenbeek 1984 Les Mathes
784	B	F	1982 San Diego WAP 1984
900	B	M	1983 Laguna Hills 1985 Fort Worth 1986 Louisville 1988 Fort Worth 1989 Clifton
774	B	F	1983 San Diego WAP 1984 Miami 1984
769	B	M	1983 Wakayama 1983
770	B	M	1983 Whipsnade 1984 Les Mathes
772	B	F	1983 Knoxville 1985 Louisville
899	B	M	1983 Lichtenburg 1985 Potgietersrus 1990 South Africa: Touchstone
771	B	M	1983 Memphis 1983
775	B	M	1983 San Diego WAP 1983 San Diego 1983 unknown (?)
782	B	M	1983 West Palm Beach 1985 unknown (?)
781	B	M	1983 West Palm Beach 1983
1032	B+	M	1983 Jacksonville 1983
801	B	M	1983 Dubbo 1988 Christchurch
779	B	F	1983 Hodenhagen 1985 Tripoli
847	W	F	1983 Liberec
902	W	F	1983 Budapest
789	B	F	1983 Dvur Kralove <i>cottoni</i>
828	B	M	1983 Prescott
794	B	M	1983 Lichtenburg 1984 South Africa: Naboomspruit
788	B	F	1983 San Diego WAP
832	B	M	1983 Phoenix 1985 International Animal Exchange 1985
901	B	F	1984 Laguna Hills 1985 Fort Worth 1986 Cleveland 1988 Fort Worth 1989 unknown (?)
790	B	M	1984 Knoxville 1985 Cleveland
791	B	F	1984 Knoxville 1985 Louisville
813	W	M	1984 Himeji 1990 Tensin 1994
814	W	F	1984 Himeji 1989 Choushun
815	W	F	1984 Himeji
816	W	F	1984 Himeji
817	W	F	1984 Himeji 1986
	B+	M	1984 Ramat-Gan 1984
792	B+	M	1984 West Palm Beach 1984
	W	M	1984 Valencia
796	B	M	1984 Hilvarenbeek 1985 Les Mathes
795	B+	M	1984 Memphis 1984
904	B	F	1984 South Africa: Middelburg 1986 South Africa: Steelpoort
802	B	M	1984 Dubbo 1984
819	B	F	1984 San Diego WAP
820	B	F	1984 San Diego WAP 1986 Wellington 1986 Christchurch
895	B	F	1984 Taipei Lefoo
821	B	F	1984 San Diego WAP 1986 Wellington 1986 Christchurch

<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
798	B	F	1984 West Palm Beach 1986 Bogor 1986
799	B	M	1984 Ramat-Gan 1989 South Africa: Mica Hope
797	B	F	1984 Hodenhagen 1986 Gelsenkirchen 1987 Unknown (?)
822	B	F	1984 San Diego WAP
800	B	M	1984 Whipsnade 1986 Sofia
806	B	M	1984 Wakayama 1989 Shizuoka
818	B	F	1984 International Animal Exchange 1986
807	B	F	1984 Wakayama 1985
803	B	M	1984 Whipsnade 1986 Winchester
823	B	M	1984 San Diego WAP 1986 Wellington 1986 Christchurch 1990 Winnellie
912	B	M	1984 Ocala (?) unknown (?)
808	B	M	1984 West Palm Beach 1988
840	B	F	1984 Arnhem 1995
	W	F	1984 (?) Grand Prairie (?)
	B	F	1984 Grand Prairie
965	B	M	1984 Jackson NJ 1989 Alvin
966	B	M	1984 Jackson NJ 1989 Alvin
812	B	F	1985 Munster
	B+	F	1985 Woburn 1985
810	B+	M	1985 Whipsnade 1985
809	B	F	1985 Jacksonville 1985 Gelsenkirchen 1986 Riyadh
824	B	F	1985 San Diego WAP 1987
849	B	M	1985 Kyushu
811	B+	F	1985 Whipsnade 1985
880	B	M	1985 Lichtenburg 1986 South Africa: Naboomspruit
826	B	M	1985 Toronto 1985 Gelsenkirchen 1986 Bogor
855	B+	F	1985 Edinburgh 1985
844	B+	M	1985 Katowice 1985
879	B+	M	1985 Jacksonville 1985
825	B	F	1985 San Diego WAP 1986 Honolulu 1988
831	B	F	1985 San Antonio 1986 Gelsenkirchen 1988 South Africa: Johannesburg Hurn
884	B	M	1985 Santo Domingo 1985 Buenos Aires: Circo F. Gasca
841	B	M	1985 San Diego WAP 1986 Honolulu
836	B	F	1985 Hodenhagen 1986 Gelsenkirchen 1988 South Africa: Krugersdorp
834	B	M	1985 Hilvarenbeek 1986 Stolberg
827	B	M	1985 Knoxville 1986 Gelsenkirchen 1987 unknown (?)
830	B	F	1985 Morelia 1986 Guadalupe 1990
842	B	F	1985 Memphis 1986 Cleveland
843	B	M	1985 San Diego WAP 1987 Gelsenkirchen 1988 Sandton
872	W	M	1985 Pyongyang
873	W	F	1985 Pyongyang
874	W	F	1985 Pyongyang
829	B	M	1985 Prescot
875	B+	M	1985 Pyongyang 1985
896	B	F	1985 Taipei Leofoo
833	B	M	1985 Whipsnade 1988 Winchester
835	B	F	1985 Hilvarenbeek
850	B	M	1985 Himeji 1990 Tensin
837	B	M	1985 Ramat-Gan 1988 South Africa: Krugersdorp
838	B	M	1985 Ramat-Gan 1988 South Africa: Krugersdorp
839	B+	M	1985 Phoenix 1985
871	B	F	1985 Dubbo 1989 Werribee
845	B	F	1986 Bloemfontein
848	B	M	1986 Kyushu
881	B	M	1986 Lichtenburg 1987 South Africa: Rietvlei Dam 1987
860	B	M	1986 San Diego WAP 1990 Lahore
877	B	F	1986 San Diego WAP 1986
861	B	M	1986 San Diego WAP 1989 Omaha
890	B	F	1986 Nagasaki Safari 1991 unknown (?)
851	B	F	1986 Knoxville 1987 Grand Prairie (?)
889	B	M	1986 Wakayama

<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
894	B	M	1986 Taipei Leofoo 1987
862	B	M	1986 San Diego WAP 1987 Gelsenkirchen 1988 South Africa: Rietvlei Dam
846	B+	F	1986 Whipsnade 1986
863	B	F	1986 San Diego WAP 1988 Augsburg 1988
878	B	F	1986 Jacksonville 1986
868	B	F	1986 Whipsnade 1988 Winchester
893	B+	M	1986 Taipei Leofoo 1986
888	B	M	1986 Katowice 1989 Gelsenkirchen 1990 Plaisance
	W	M	1986 Bratislava
	W	F	1986 Bratislava
	W	F	1986 Bratislava
856	B	F	1986 Edinburgh 1988 Winchester
866	B	F	1986 Hopenhagen 1987 Fasano 1987 Belpasso
859	B	F	1986 Sofia
864	B	M	1986 San Diego WAP 1990 Sigean
882	B	F	1986 Knoxville 1988 unknown (?)
857	B	M	1986 West Palm Beach 1987 Bayou,
982	W	F	1986 Taipei
983	W	F	1986 Taipei
986	W	F	1986 Taipei
869	B+	M	1986 Whipsnade 1986
865	B	M	1986 Usti 1993 Villaescusa
876	B	M	1986 Llano 1988 Louisville 1994 Columbus
858	B	M	1986 West Palm Beach 1990 Litchfield Park
854	B	F	1986 Munster
885	B	M	1986 Santo Domingo 1987
921	B	M	1987 Jacksonville 1990 Christchurch
908	B	M	1987 San Diego WAP 1987 Gelsenkirchen 1988 South Africa: Johannesburg Hurn
920	B	M	1987 Knoxville 1987
984	W	F	1987 Taipei
940	B	M	1987 Onuma 1988
909	B	M	1987 San Diego WAP 1988
931	B	F	1987 Lichtenburg
947	B	F	1987 Aldergrove 1988 Granby 1990
922	B+	F	1987 Jackson 1987
985	B	F	1987 Taipei
897	B	M	1987 San Antonio 1990 Christchurch 1990 Winnellie
898	B	M	1987 Phoenix 1989 Glen Rose 1993 Waco
903	B	M	1987 West Palm Beach 1987 [dealers] 1988 USA: Ringling 1988 Wellford
913	B	M	1987 Ramat-Gan 1989 South Africa: Phalaborwa
914	B	M	1987 Memphis 1990 Christchurch 1990 Perth
905	B	M	1987 Hopenhagen 1989 unknown (?)
906	B	M	1987 Hilvarenbeek 1989 Calarasi
	B	F	1987 Ramat-Gan 1987
907	B	F	1987 Whipsnade 1991 Emmen
942	B	M	1988 Arnhem 1989 Calarasi (?)
923	B	M	1988 San Diego WAP 1988 Vallejo 1989 unknown (?)
925	B	F	1988 San Diego WAP 1988 Wingst 1989
926	B	M	1988 San Diego WAP 1988 Gelsenkirchen 1988 died in transit 1988
927	B	M	1988 Jacksonville 1989 Gelsenkirchen 1989 Europe: Circus Atlas
932	B	F	1988 Lichtenburg
919	B	F	1988 Ramat-Gan 1989 Singapore 1991
941	B	F	1988 Wakayama
928	B	F	1988 San Diego WAP 1990 Lahore
933	B	F	1988 Lichtenburg
948	B	F	1988 Santo Domingo 1996
929	B	F	1988 San Diego WAP 1990 Sigean
936	B	M	1988 Kyushu
915	B	F	1988 Hopenhagen 1994
937	B	F	1988 Edinburgh 1989 Whipsnade 1990

<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
916	B	M	1988 West Palm Beach
934	B	F	1988 Potgietersrus 1990 Lichtenburg 1996
	B+	F	1988 Munster 1988
930	B	F	1988 San Diego WAP 1989 Christchurch 1990 Perth 1990
935	B	F	1988 Potgietersrus 1989
938	B	F	1988 Hilvarenbeek
939	B+	F	1988 Dubbo 1988
918	B	M	1988 Whipsnade 1994 St Pere
917	B	M	1988 West Palm Beach 1988
972	B	F	1989 West Palm Beach 1989
1033	B	F	1989 Jacksonville 1989
945	B	M	1989 Ramat-Gan
943	B	F	1989 Dvur Kralove <i>cottoni</i>
946	B	M	1989 Ramat-Gan 1992 Cairo
968	B	M	1989 San Antonio 1992 Leon
953	B	M	1989 Lichtenburg 1990
944	B	M	1989 Hodenhagen 1990 Athens: Circo de Madrid
950	B	M	1990 Toronto
1038	B	F	1990 Knoxville 1993 New Orleans
954	B	F	1990 Lichtenburg 1994 Pretoria
971	B	F	1990 Wakayama
949	B	F	1990 Ramat-Gan
961	B	F	1990 West Palm Beach 1990
963	B	M	1990 Phoenix 1992 unknown (?)
951	B	M	1990 Hodenhagen
962	B	F	1990 Edinburgh 1992 Whipsnade
967	B	F	1990 Munster
964	B	F	1990 Hilvarenbeek
1041	B	M	1990 Brownsville
973	B	F	1990 Whipsnade 1991
974	B	M	1990 Whipsnade 1994 Munster
1021	B	M	1990 Guadalajara 1991 Cuernavaca
	B	F	1990 Jackson NJ
	B	F	1990 Jackson NJ
1008	B	M	1991 Hilvarenbeek 1993 Fuengirola
1059	B	M	1991 Morelia 1992 Guadalupe
1011	W	M	1991 Whipsnade
1039	B	F	1991 Knoxville 1994 Winston
970	B	M	1991 Usti 1993 Dvur Kralove
	B+	F	1991 Dvur Kralove 1991 <i>cottoni</i>
1034	B	M	1991 Jacksonville 1993 New Orleans
1049	B	M	1991 Ramat-Gan
993	W	M	1991 Pretoria 1992 unknown (?)
981	B	M	1991 Memphis 1993
994	B	M	1991 Lichtenburg 1994 Pretoria
979	B+	F	1991 Dubbo 1991
975	B	F	1991 Kyushu
969	B	M	1991 Hodenhagen
976	B+	M	1991 Kyushu 1991
1013	W	M	1991 Lisbon
1014	W	F	1991 Lisbon
995	W	F	1991 Pretoria 1992 unknown (?)
1052	B	F	1991 Knoxville 1991
980	B	M	1991 San Diego WAP 1995 Salina
977	B	F	1991 Himeji 1994 Wakayama
1017	B	F	1991 Wakayama
	B	M	1991 Glen Rose 1991
	B	F	1991 Aldergrove 1991
1019	B	F	1991 Yulee 1994
1055	B	F	1992 Bangkok Safari
1009	B	F	1992 Hilvarenbeek



<i>Studbook No.</i>	<i>Status</i>	<i>Sex</i>	<i>History</i>
1012	W	F	1992 Kolmarden
1003	W	M	1992 Sao Leopoldo
978	W	F	1992 Sao Leopoldo
1010	B	M	1992 Whipsnade 1994 Cerza
1050	B+	M	1992 Ramat-Gan 1992
1000	W	M	1992 Toyohashi
1001	W	F	1992 Toyohashi
1002	W	F	1992 Toyohashi
996	B	F	1992 Lichtenburg
997	B	F	1992 Lichtenburg 1994 Melaka
992	B	M	1992 West Palm Beach
990	B	M	1992 San Diego WAP 1994 Berlin Tierpark 1995
998	B	M	1992 Lichtenburg 1994 Melaka
987	B	M	1992 Hodenhagen 1994 Fuengirola
1006	B	M	1992 Santo Domingo 1993 Puerto Rico
1052	B	F	1992 Paris
	W	F	1992 Singapore
	W	F	1992 Singapore
989	B	F	1992 Edinburgh 1994 Cerza
999	W	M	1992 Lichtenburg
991	B	F	1992 San Diego WAP 1994 Berlin Tierpark
1053	B+	M	1992 Knoxville 1992
988	B	F	1992 Hodenhagen 1994 Fuengirola
1027	B	F	1992 Glen Rose
	W	M	1993 Villaescusa
	W	M	1993 Villaescusa
1007	B	F	1993 Santo Domingo
1044	B	F	1993 San Diego WAP 1993
1005	B	F	1993 Dublin
1040	B	M	1993 Knoxville
1028	B	F	1993 Ramat-Gan
	W	F	1993 Villaescusa
	W	F	1993 Villaescusa
1022	B	F	1993 Guadalajara
1117	B	F	1993 Jackson NJ
	B	M	1993 Jackson NJ 1994 USA: Carson & Barnes
1035	B	F	1993 San Antonio 1994 Jacksonville 1996
1020	B	F	1993 Yulee
1004	B	M	1993 Hodenhagen
1015	B+	M	1993 Kyushu 1993
1016	B	F	1993 Kyushu
1029	B	M	1993 Usti
1042	B	M	1994 Brownsville
1026	B	F	1994 Edinburgh
1037	B	F	1994 San Diego WAP
1046	B	F	1994 West Palm Beach
1036	B	F	1994 Yulee
1043	B	F	1994 Hodenhagen
1024	W	M	1994 Barcelona 1996
1048	B	M	1994 Hilvarenbeek
1023	B	M	1994 Katowice
1045	B	M	1994 San Antonio
1057	B	M	1994 Wakayama 1995
1047	B	F	1994 Whipsnade



Fig. 132. White rhinoceros in Arnhem, from a postcard.

**List of specimens of *Ceratotherium simum* in captivity**

**Part 1: Northern White Rhinoceros (*Ceratotherium simum cottoni*)**

**Al Ain, Abu Dhabi, United Arab Emirates**

**Zoological Park and Aquarium**

*F* 1973 – 1978 September 12 †  
'Tofacha' 345-ALA 1  
Caught in Sudan.

**Antwerp, Belgium**

*Société Royale de Zoologie d'Anvers*  
*Jardin Zoologique*

*M* 1950 April 7 – 1968 April 13 †  
'Paul' 015-ANT 1  
This animal was 20 months old on arrival. It was bought, together with the following female, from the Game Preservation Department, Khartoum, Sudan. The pair was caught in April 1949 near Shambe, Bahr el Ghazal

Province, Sudan, from where it was taken to Juba (Van den Bergh 1955, with 17 figures).

*F* 1950 April 7 – 1985 August 7 †  
'Chloë' 016-ANT 2  
Caught in Sudan (Lindemann 1982: 18, and see previous entry). It was 22 months on arrival. See Fig. 136.

**Dvur Kralove, Czech Republic**

**Zoological Gardens**

The original six specimens imported in September 1975 were captured in the Shambe area of Southern Sudan. Vahala *et al.* (1993) discussed the maintenance and the breeding of this subspecies in Dvur Kralove.

*M* 1975 September 19 –  
'Sudan' 372-DVU 12  
This animal was three years old on arrival.

*M* 1975 September 19 – 1989 October 13  
'Saut' 373-DVU 13  
This animal was three years old on arrival. To San Diego Wild Animal Park.

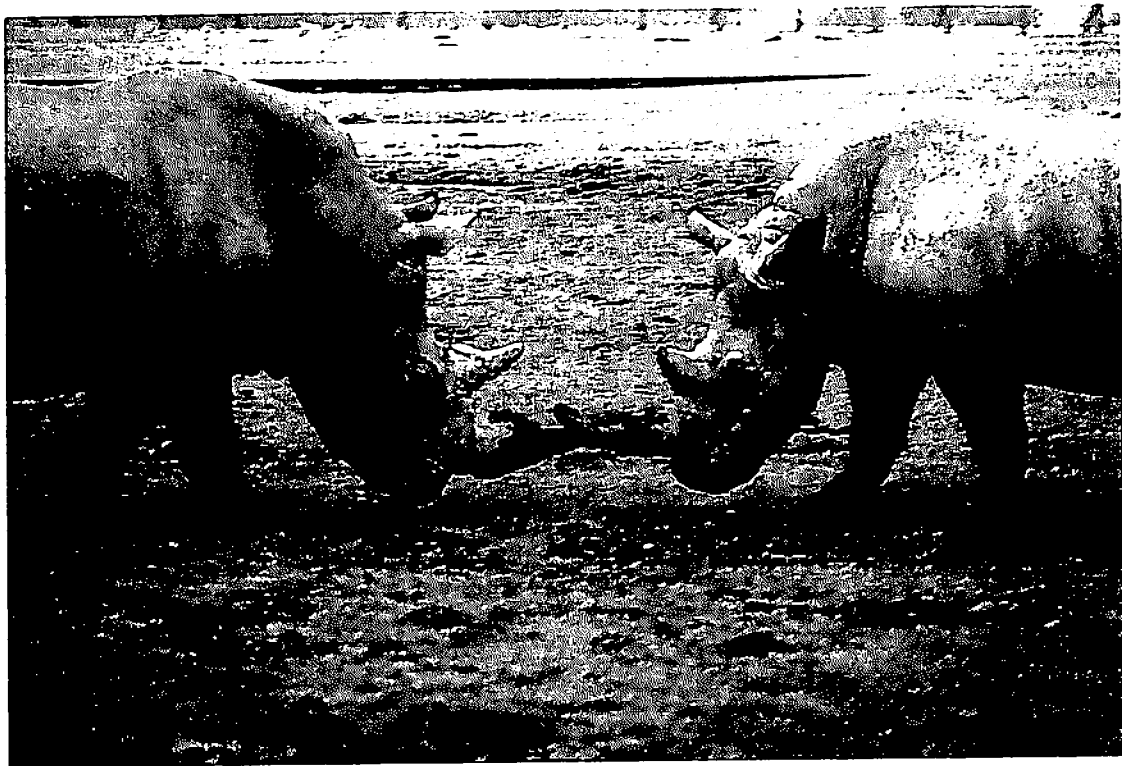


Fig. 133. Two white rhinoceros at Whipsnade, 1995.



Fig. 134. A pair white rhinos in Mysore, October 1993.



Fig. 135. San Diego, 1990.



Fig. 136. Female northern white rhinoceros 'Chloë' in Antwerp, October 1972.

F 1975 September 19 – 1989 October 13  
'Nola' 374-DVU 14  
This animal was about 1.5 years old on arrival.  
To San Diego Wild Animal Park.

F 1975 September 19 – 1982 January 4 †  
'Nuri' 375-DVU 15  
This animal was three years old on arrival. It  
died of traumatic shock after falling into a  
ditch.

F 1975 September 19 – 1989 October 13  
'Nadi' 376-DVU 16  
This animal was three years old on arrival. To  
San Diego Wild Animal Park.

F 1975 September 19 –  
 'Nesari' 377-DVU 17  
 This animal was three years old on arrival.

F 1977 August 27- 1992 June 28 †  
 'Nasima' 351-PRC 1  
 From Prescott. It died when the front horn was trapped between the bars of a restraint chute.

F 1977 November 11 –  
 'Nasi' 476-DVU 19  
 Born to Nasima (351). The baby was conceived in Prescott with an unidentified male *C. s. simum*.

M 1980 June 8 –  
 'Juni' 630-DVU 22  
 Born to Saut (373) and Nasima (351).

F 1983 November 15 –  
 'Nabire' 789-DVU 23  
 Born to Sudan (372) and Nasima (351).

M 1986 August 27 – 1990 June 25 †  
 'Ben' 019-LON 1  
 From London. It was euthanized due to senile emaciation, when it was about 39 years old.

F 1989 July 11 –  
 'Najin' 943-DVU 24  
 Born to Sudan (372) and Nasima (351).

F 1991 – 1991 †  
 Aborted calf to Sudan (372) and Nasima (351).

### Frejus-St Raphael, France

#### Parc Zoologique de Frejus

The *International Zoo Yearbook* recorded in its 'Census of Rare Animals in Captivity' (Vol. 32 with data from 1992 and Vol. 33 with data from 1993) the presence of one male white rhino of the northern subspecies in this park. No independent information is known and the animal does not appear in studbook (Klős and Frese 1993). However, the *IZY* unfortunately lists quite a number of southern animals as *cottoni*, which will need further attention.

### Hannover, Germany

#### Zoologischer Garten

M 1963 – 1964 September  
 'Gus'  
 From Kenya, Rumuruti. Caught in Uganda in

1947 and kept by Carr Hartley on his farm in Kenya since that time. The exact date of arrival in Hannover is unknown. It is shown in illustrations in Reynolds (1968, figs. 13, 14) and Dittrich and Rieke-Müller (1990: 142, carrying its keeper Willi Stellmann). To Southampton.

### Kenya

#### Rumuruti: Carr Hartley farm

M 1947 – 1963

'Gus'

Caught by Carr Hartley in Uganda in 1947. Tamed on his farm in Rumuruti. People could safely ride on it. The animal participated in a number of Tarzan movies made in Kenya, and possibly also in other productions. In 1949 Peter Ryhiner paid a visit to Carr Hartley and saw a pair of white rhinos. The male was sold to Hannover in 1963.

F 1947 – (?)

In 1949, Carr Hartley was visited by Peter Ryhiner. The latter saw a pair of white rhinos there, for which Hartley was asking £17,000 (Ryhiner and Mannix 1959: 118). The male had been caught in Uganda and must have been an example of the northern subspecies (see above). It is likely that the female came from the same place, but this is not definitely recorded. The former director of the Basel Zoo, Dr. Ernst M. Lang, was in Rumuruti at the end of August 1952 and saw a pair of white rhinos, said to have been caught two years earlier in Sudan (probably confused with the pair taken to Antwerp in 1950). The price had come down to £12,500. The animals were quite tame, as shown in two photographs published by Lang (1994: 74, 75). The disposition of the female is unknown.

### Khartoum, Sudan

#### Zoological Gardens

#### Wildlife Administration

1949 January 17 – 1949 January 29 †

Caught near Tonj, in Southern Sudan, when it was about two months old. It was flown to Khartoum with "the intention being to rear it for export". It died of enteritis as described by Thomson *et al.* (1949).

M 1964 April 1 – 1965

To Riyadh.

054-KHM

*F* 1964 April 1 – 1965

055-KHM 2

To Riyadh.

*M* 1970 April – 1978 January 16 †

347-KHM 3

No other particulars known.

*M* 1973 April – 1990 August 12

'Angalifu'

348-KHM 4

To San Diego Wild Animal Park.

## London, UK

Zoological Society of London

*M* 1955 July 25 – 1986 August 27

'Ben'

019-LON 1

Caught in Uganda (Kelham 1956). To Dvur Kralove.

*F* 1955 July 25 – 1964 †

'Bebe'

Caught in Uganda.

## Prescot, UK

Knowsley Safari Park

*F* 1971 June – 1977 August 27

'Twink'

351-PRC 1

Caught by Chipperfield in Uganda (Svitalsky *et al.* 1993). It was six years old on arrival. To Dvur Kralove.

## Riyadh, Saudi Arabia

Zoological Gardens

*M* 1965 –

054-KHM 1

From Khartoum.

*F* 1965 –

055-KHM 2

From Khartoum.

## San Diego, CA, USA

1. San Diego Zoo

*F* 1979 November 8 – 1982 October 26

'Dinka'

074-STL 1

From San Diego Wild Animal Park and returned there.

2. San Diego Wild Animal Park

*M* 1972 April 22 – 1975 May 2 †

'Bill'

027-WAS 1

From Washington (Rieches 1993).

*F* 1972 April 22 – 1979 March 15 †

'Lucy'

028-WAS 2

From Washington.

*M* 1972 August 7 –

'Dinka'

074-STL 1

From St Louis. It was exhibited in San Diego from 8th November 1979 to 26th October 1982.

*F* 1972 August 7 – 1974 August 15 †

'Joyce'

075-STL 2

From St Louis.

*M* 1989 October 14 –

'Saut'

373-DVU 13

From Dvur Kralove.

*F* 1989 October 14 –

'Nola'

374-DVU 14

From Dvur Kralove.

*F* 1989 October 14 –

'Nadi'

376-DVU 16

From Dvur Kralove.

*M* 1990 August 12 –

'Angaliju'

348-KHM 4

From Khartoum.

## Southampton, UK

Zoological Gardens

*M* 1964 September – 1967 May

'Gus'

From Hannover. Sold to an unidentified safari park in Miami or in Florida. Its further life is not known.

**St Louis, MO, USA***Saint Louis Zoo*

*M* 1957 July 28 – 1972 August 7  
 'Dinka' 074-STL 1  
 Caught in Sudan. It was five years old on arrival. To San Diego Wild Animal Park.

*F* 1957 July 28 – 1972 August 7  
 'Joyce' 075-STL 2  
 Caught in Sudan. It was five years old on arrival. To San Diego Wild Animal Park.

**Washington, DC, USA***National Zoological Gardens*

*M* 1956 September 4 – 1972 April 14  
 'Bill' 027-WAS 1  
 Came from Sudan (dealer Seago), when it was 2.5 years old. To San Diego Wild Animal Park.

*F* 1956 September 4 – 1972 April 14  
 'Lucy' 028-WAS 3  
 Came from Sudan (dealer Seago), when it was 2.5 years old. To San Diego Wild Animal Park.

**Part 2: Southern White Rhinoceros**  
*(Ceratotherium simum simum)*

**Aalborg, Denmark***Aalborg Zoo*

*M* 1971 June 3 – 1990 March 23  
 'Marius' 163-AAL 1  
 Caught in Umfolozi, imported by W. Delfs, Inc. (Kalahari Safaris). It was two years old on arrival. To South Africa (private ranch: Sun City).

*F* 1971 June 3 – 1990 March 23 †  
 'Nielsine' 164-AAL 2  
 Caught in Umfolozi, imported by W. Delfs, Inc. It was five years old on arrival. It was shipped to Sandton, but died in transit.

*F* 1971 June 3 –  
 'Larsine' 165-AAL 3  
 Caught in Umfolozi (dealer W. Delfs). It was five years old on arrival.

*F* 1971 June 3 –  
 'Hansine' 166-AAL 4  
 Caught in Umfolozi (dealer W. Delfs). It was three years old on arrival.

*M* 1990 March 23 – 1990 August 8  
 'George' 712-PRC 8  
 From Prescott. To Givskud.

**Al Ain, Abu Dhabi, United Arab Emirates***Zoological Park and Aquarium*

*M* 1975 –  
 'Burli' 346-ALA 2  
 Caught in Natal when it was three years old.

*F* 1979 May 7 – 1981 November 8 †  
 'Vanda' 115-DVU 6  
 From Dvur Kralove (via Ruhe in Gelsenkirchen).

*F* 1982 – 1989 October †  
 870-ALA 3  
 Caught in Natal when it was two years old. Died of enteritis.

**Albuquerque, NM, USA***Rio Grande Zoological Park*

*M* 1973 November 27 –  
 'Chukuru' 359-ALQ 2  
 Caught in Natal when it was eight years old.

*F* 1973 November 27 –  
 'Dinka' 358-ALQ 1  
 Caught in Natal when it was seven years old.

**Aldergrove, BC, Canada***Vancouver Game Farm*

*M* 1979 May 1 – 1981 †  
 758-DOS 9  
 From Idaho Falls. According to the 6th edition of the studbook (Ochs 1995), it was transferred to Penticton in 1980 where it died (probably estimated) in 1981.

*F* 1979 May 1 –  
 'Rubbie' 757-DOS 8  
 From Idaho Falls.

*F* 1986 August 26 –  
 'Daisy Mae' 599-SAW 74  
 From San Diego Wild Animal Park.

*F* 1987 June 22 – 1988 October 17  
 'Dolly' 947-GRA 1  
 Born to Rahisi (420, in San Diego WAP) and  
 Daisy Mae (599). To Granby.

*F* 1991 April – 1991 April †  
 Born to 758 and Daisy Mae (599). It lived for  
 only four days.

### Alexandria, Egypt

#### Zoological Gardens

*M* 1973 July 9 –  
 'Mazinda' 130-WHI 22  
 From Whipsnade.

### Almo, ID, USA

#### Jungle Wonder Circus

*M* 1978 June 4 – 1978 December 12 †  
 281-SAW 24  
 From Winston.

### Alvin, TX, USA

#### Bayou Wildlife Park

*M* 1987 October 15 –  
 'Peewee' 857-WPB 27  
 From West Palm Beach.

*M* 1989 August 20 –  
 'Shorty' 965-ALV 1  
 According to the studbook, this animal came  
 from Natal and was imported through Great  
 Adventure Zoo, Jackson, NJ. However, Mar-  
 vin Jones heard from staff in Jackson that the  
 animal had been born there.

*M* 1989 August 20 –  
 'Poncho' 966-ALV 2  
 As with the preceding animal (965) probably  
 born in Jackson, NJ.

*F* 1994 June –  
 'Bonnie' 613-WPB 17  
 In West Palm Beach until May 1982, after

which it was kept by a variety of private col-  
 lections and dealers (see entry for West Palm  
 Beach). On 7th October 1995 there was a cer-  
 emony at Bayou Wildlife Park to marry Bon-  
 nie to Shorty, performed by Judge Mike Nel-  
 son (*Really, Rhinos!* 9 (4), 1995, with photos).

### Antwerp, Belgium

#### Société Royale de Zoologie d'Anvers Jardin Zoologique

*M* 1974 July 2 –  
 'Balthasar' 076-PRY 7  
 From Pretoria. This animal was sometimes  
 exhibited in Planckendael (Douliez 1979).

*M* 1974 July 2 – 1986 January 12  
 'Barend' 079-PRY 8  
 From Pretoria. To Bogor (via Gelsenkirchen).

*F* 1974 August 12 –  
 'Brigit' 291-ANT 4  
 From Pretoria. It was sometimes exhibited in  
 Planckendael (Douliez 1979).

*F* 1974 August 12 – 1986 January 18  
 'Bieke' 292-ANT 5  
 From Pretoria. To Bogor.

*M* 1981 January 11 – 1983 May 18 †  
 'Isidoor' 715-ANT 7  
 Born to Balthasar (76) and Brigit (291). There  
 is a photograph in *Zoo, Antwerpen*, 48 (4), p.  
 171 (April 1983). It was sold to an unidentified  
 collection in Kinshasa, Zaire, but died in tran-  
 sit on 18th May 1983.

### Arnhem, The Netherlands

#### Burgers Zoo

The registration of animals in this collection  
 only started in 1979, older records are not  
 available. The zoo noted that two males and  
 two females were sold to the dealer Van den  
 Brink of Soest, the Netherlands, on 29th May  
 1974. It is not certain which specimens these  
 were. The zoo received a large shipment of  
 four males and seven females in October 1971.  
 It seems that another pair arrived earlier,  
 because Vincent (1970) reported that the Na-  
 tal Parks Board sent 1/1 to Arnhem between  
 January and July 1970.



*M* 1971 October 8 – 1985 †  
 'Punch' 125-ARN 1  
 Caught in Natal when it was two years old. Shipped to Maracaibo through the dealer Van den Brink, Soest, the Netherlands; however, the animal died in transit.

*M* 1971 October 8 – 1986 February 4  
 'Willem' 167-ARN 3  
 Caught in Natal when it was two years old. To Bogor.

*M* 1971 October 8 – 1974 May 29  
 'Jack' 168-ARN 4  
 Caught in Natal when it was two years old. To Hopenhagen.

*M* 1971 October 8 – 1978 June 20  
 'Herman' 169-ARN 5  
 Caught in Natal when it was two years old. To Gelsenkirchen.

*F* 1971 October 8 – 1974 May 29  
 'Pixie' 126-ARN 2  
 Caught in Natal when it was two years old. To Hopenhagen.

*F* 1971 October 8 – 1979 September 3 †  
 'Ivonne' 170-ARN 6  
 Caught in Natal when it was two years old.

*F* 1971 October 8 –  
 'Ineke' 171-ARN 7  
 Caught in Natal when it was two years old.

*F* 1971 October 8 – 1980 January 16 †  
 'Lia' 172-ARN 8  
 Caught in Natal when it was two years old.

*F* 1971 October 8 – 1986 February 4  
 'Dini' 173-ARN 9  
 Caught in Natal when it was two years old. To Bogor.

*F* 1971 October 8 –  
 'Gea' 174-ARN 10  
 Caught in Natal when it was two years old. See Fig. 137.

*F* 1971 October 8 –  
 'Roelie' 175-ARN 11  
 Caught in Natal when it was two years old.

*M* 1974 August 16 – 1996 December 23 †  
 'Limbo' 228-ARN 13  
 Caught in Natal when it was one year old.



Fig. 137. Arnhem's female 'Gea' with baby 'Petra' in April 1981.

*M* 1974 August 16 –  
 'Henk' 229-ARN 14  
 Caught in Natal when it was four years old.

*F* 1974 August 16 – 1975 September 2 †  
 'Kiki' 176-ARN 12  
 Caught in Natal when it was two years old.

*F* 1974 August 16 –  
 'Freya' 230-ARN 15  
 Caught in Natal when it was three years old.

*M* 1977 November 22 – 1979 December 14  
 'Wouter' 402-ARN 16  
 Born to Willem (167) and Gea (174). To Stolberg.

*M* 1979 October 4 – 1979 October 9 †  
 'Rick' 644-ARN 18  
 Born to an unknown male and Freya (230).

*F* 1981 April 22 –  
 'Petra' 643-ARN 17  
 Born to Willem (167) and Gea (174).

*F* 1984 December 25 – 1995 April 18 †  
 'Noëlle' 840-ARN 19  
 Born to Limbo (228) and Gea (174).

*M* 1988 January 1 – 1989 April 24  
 'Storm' 942-ARN 20  
 Born to Limbo (228) and Gea (174). To Calarasi.

### Asheboro, NC, USA

#### North Carolina Zoological Park

*M* 1976 September 30 –  
 'Ted' 573-NCL 1  
 From St Louis.

*F* 1976 September 30 –  
 'Alice' 574-NCL 2  
 From St Louis.

*F* 1977 August 19 – 1988 November 9  
 'Caroline' 575-NCL 3  
 Born to Ted (573) and Alice (574). To Knoxville.

*M* 1987 November 22 –  
 'Daryll' 413-KIM 4  
 From Hudson.

*F* 1987 November 22 –  
 'No. 3' 565-WPB 8  
 From Kings Island.

### Athens, Greece

#### Circo de Madrid

*M* 1990 November 9 –  
 'Luka' 944-HOD 15  
 From Hopenhagen.

### Auckland, New Zealand

#### Auckland City Zoological Park

*M* 1980 September 22 –  
 'Mandhla' 541-SAW 44  
 From San Diego Wild Animal Park.

*F* 1980 September 22 – 1993 October 12  
 'Sesheka' 540-SAW 43  
 From San Diego Wild Animal Park. To Christchurch.

### Augsburg, Germany

#### Zoologischer Garten

*M* 1980 June 10 –  
 'Abu' 017-ZRH 1  
 From Zurich.

*F* 1980 June 10 –  
 'Toto' 018-ZRH 2  
 From Zurich.

*F* 1988 August 20 – 1988 October 15 †  
 'Msichana' 863-SAW 80  
 From San Diego Wild Animal Park.

### Baker, LA, USA

#### Greater Baton Rouge Zoo

*M* 1974 October 26 – 1988 May 16  
 'Mondo' 465-GBR 1  
 From Kings Island. To Knoxville.

*F* 1974 October 26 –  
 'Hatari' 466-GBR 2  
 From Kings Island.

*F* 1974 October 26 – 1991 January 16  
 'Wagasa' 467-GBR 3  
 From Kings Island. To Knoxville.

*M* 1988 May 16 –  
 'Marvin' 618-KNO 2  
 From Knoxville.

*F* 1991 January 18 –  
 'Amy' 587-PHL 1  
 From Knoxville.

### Baltimore, MD, USA

#### Zoological Gardens

*M* 1992 June 12 –  
 'Leroy' 080-SDF 1  
 From Kings Island.

*F* 1992 June 12 –  
 'Daisy Mae' 380-COL 2  
 From Kings Island.

**Bandholm, Denmark***Knuthenborg Safari Park*

*M* 1974 May 22 – 1985 November 13 †  
457-BAN 1  
Caught in Natal. It was two years old on arrival.

*F* 1974 May 22 –  
458-BAN 2  
Caught in Natal. It was two years old on arrival.

*M* 1976 September 10 – 1991 December 23 †  
'Faru' 232-CPH 5  
From Copenhagen.

*F* 1976 September 10 –  
'Ngili' 231-CPH 4  
From Copenhagen.

*M* 1993 July 21 – 1994 December 31  
'Karl' 007-GEL 1  
From Leipzig. To Givskud.

*F* 1993 July 21 –  
'Else' 008-GEL 2  
From Leipzig.

**Bangkok, Thailand***1. Dusit Zoo*

*M* 1981 September 16 –  
'Soro' 519-SHI 1  
From Wakayama.

*F* 1981 September 16 –  
'Yaeko' 520-SHI 2  
From Wakayama.

*2. Bangkok Safari*

*M* 1990 February 14 –  
'Boy' 433-IAE 15  
From International Animal Exchange.

*F* 1990 February 21 –  
'Yow' 429-IAE 11  
From International Animal Exchange.

*F* 1990 February 28 –  
'Darin' 431-IAE 13  
From International Animal Exchange.

*F* 1992 November 6 –

1055-BKS 1

Born to Boy (433) and Yow (429).

**Barcelona, Spain***Parc Zoologic*

*M* 1970 June 11 –  
'Matabele' 084-BON 1  
Caught in Natal. It was two years old on arrival.

*F* 1970 June 11 –  
'Namib' 085-BON 2  
Caught in Natal. It was two years old on arrival.

*F* 1975 April 11 – 1996 February 1 †  
'Bangweolo' 274-BON 3  
Caught in Natal. It was two years old on arrival.

*M* 1994 February 11 – 1996 July 18 †  
'Zimha' 1024-BON 4  
Confiscated by the General Commissioner (in Spain?), origin not known.

**Barquisimeto, Venezuela***Parque Zoologico Bararida*

*M* 1978 July –  
638-BAR 2  
From Doswell.

*F* 1978 July –  
637-BAR 1  
From Doswell.

*M* 1979 June 21 – 1979 July 13 †  
300-PSM 2  
From Margarita.

*F* 1979 June 21 – 1985 May 5 †  
301-PSM 3  
From Margarita.

*M* 1979 July 2 – 1984 June 23 †  
299-PSM 1  
From Margarita.

**Beijing, China***Zoological Gardens*

*M* 1974 December 12 –  
'Mungo' 214-WHI 23  
From Whipsnade.

*F* 1974 December 12 –  
'Nykasi' 227-WHI 26  
From Whipsnade.

**Belo Horizonte, Brazil***Fundação Zoo-Botanica de Belo Horizonte*

*M* 1972 December 1 – 1979 June 9 †  
674-BEL 1  
Caught in Natal. It was two years old on arrival.

*F* 1972 December 1 –  
'Maria Angelica' 675-BEL 2  
Caught in Natal. It was two years old on arrival.

**Belpasso, Sicily, Italy***Parco Zoo di Sicilia*

*F* 1987 November 1 –  
'Cleopatra' 866-HOD 12  
From Fasano.

**Berlin, Germany***1. Zoologischer Garten*

*M* 1963 August 26 –  
'Hlambamans' 001-BE 1  
Caught in Umfolozi. Four years old on arrival. Klös and Frese (1981b: 51), Blaszkiewicz (1983: 57) and Klös *et al.* (1994: 220) published photographs.

*F* 1963 August 26 – 1992 April 8 †  
'Kuababa' 002-BE 2  
Caught in Umfolozi. Three years old on arrival. It was shown in Münster from 4th October 1982 to 21st May 1984. It died of metabolic failure (Blaszkiewicz 1993a,b). Photographs were published by Klös and Frese (1981b: 52) and Blaszkiewicz (1991a, figs. 1,2).

*2. Tierpark*

The white rhinos in the Berlin Tierpark were discussed by Blaszkiewicz (1993b). The rhino house was described by Blaszkiewicz (1992).

*M* 1964 August 28 – 1986 September 18  
'Zulu' 003-TI 1  
Caught in Umfolozi (imported by L. Ruhe, arriving in Hannover on 27th August 1964). It was four years old on arrival. Photographs were published by Klös and Frese (1983: 202) and Blaszkiewicz (1991a, figs. 1,2; 1993b, figs. 1,3,4). To Lodz.

*F* 1964 August 28 – 1970 September 18 †  
'Thembin Kunzi' 004-TI 2  
Caught in Umfolozi (imported by L. Ruhe). It was four years old on arrival. Photographs were published by Blaszkiewicz (1991a, figs. 1, 2; 1993b, figs. 2, 3).

*F* 1970 October 14 – 1970 October 31 †  
Caught in Natal. Vincent (1971) recorded that the Natal Parks Board shipped one female to East Berlin between August and October 1970. It only survived a few weeks.

*F* 1971 July 21 – 1971 November 8  
123-HAJ 2  
From Hannover and returned there.

*F* 1971 November 26 –  
'Lotzi' 179-TI 3  
Caught in Natal when it was four years old. It was shown in Usti nad Labem (on loan) from 4th August 1981 to 8th September 1988. Photographs can be seen in Blaszkiewicz (1993b, fig. 5) and Klös and Frese (1983: 203).

*M* 1989 September 25 –  
'Mtandane' 005-DRE 1  
From Dresden. Blaszkiewicz (1993b, fig. 6) published a photograph.

*M* 1991 October 11 –  
'Kusini' 990-SAW 92  
From San Diego WAP.

*F* 1992 July 16 –  
'Kifaru' 773-SAW 58  
From Halle. Blaszkiewicz (1993b, fig. 7) published a photograph.

*F* 1994 October 11 – 1995 November 26 †  
 'Mizigo' 991-SAW 93  
 From San Diego WAP.

### Bewdley, UK

#### West Midland Safari Park

*M* 1973 –  
 'Dick' 852-WML 1  
 Caught in Natal. It was two years old on arrival.

*F* 1973 –  
 'Maggie' 853-WML 2  
 Caught in Natal. It was two years old on arrival.

*F* 1973 March 1 –  
 'Alice' 356-PRC 6  
 From Prescott.

*M* 1987 November 11 – 1988 October 1  
 'Panzer' 117-LNG 2  
 From Warminster and returned there.

### Birmingham, AL, USA

#### Birmingham Zoo

*M* 1976 February 24 –  
 'Ronnie' 469-BGH 1  
 From Kings Island.

*F* 1976 February 24 –  
 'Gertrude' 470-BGH 2  
 From Kings Island.

*F* 1976 February 24 –  
 'Hortense' 471-BGH 3  
 From Kings Island.

### Blackpool, UK

#### Municipal Zoological Gardens

The three animals (1/2) which arrived in Blackpool in August 1972, were imported in 1971 through the zoo in Colchester.

*M* 1972 August 8 – 1992 February 20  
 'Mafuta' 252-BLA 1  
 Caught in Natal when it was three years old. To Paignton.

*F* 1972 August 8 – 1991 November 28  
 'Mikumi' 253-BLA 2  
 Caught in Natal when it was four years old. To La Barben.

*F* 1972 August 8 – 1991 November 28  
 'Mopane' 254-BLA 3  
 Caught in Natal when it was five years old. To La Barben.

*F* 1973 June 29 – 1974 November 5  
 'Nykasi' 227-WHI 26  
 Born to Mafuta (252, bred in Colchester) and Mopane (254). To Whipsnade.

### Bloemfontein, South Africa

#### Kings Park

According to Player (1972), three males and one female were sent to Bloemfontein from Natal between 1961 and 1972. Buys (1987) recorded that the zoo had received two males and three females by 1987. Vincent (1969) reported that a pair was shipped to Bloemfontein between June 1968 and January 1969. It appears that at least one pair is not recorded in the studbooks. It is likely that these were received in the 1960s and that either these animals died or were traded to other collections.

An interesting tale occurred here on the night of 2nd November 1990. A professor of entomology at the local university decided to jump into the enclosure late one night during a function at the zoo. As soon as he landed in the camp, he was charged by the bull, which he had not realized was so close. The bull caught him on the thigh, and tossed him back out of the enclosure. The professor needed a few stitches for a cut on his head, and he had a bruised thigh, but further was fine. A special plaque commemorating this event was erected at the site where he 'exited' the enclosure, and a painted cross marks the spot on the paving outside where he landed (on his head)!

*M* 1968 October 27 –  
 'Zulu' 248-BLO 1  
 Caught in Natal. It was two years old on arrival.

*F* 1971 November 16 – 1981 August 25 †  
 'Nakoti' 249-BLO 2  
 Caught in Natal when it was two years old. It died of a blood disease. The remains went to the Natural History Museum in Bloemfontein.

*F* 1982 November 19 –  
 'Thopi' 760-BLO 3  
 Caught in Natal when it was eight years old.

*F* 1986 January 4 –  
 'Jabula' 845-BLO 4  
 Born to Zulu (248) and Thopi (760).

### Bogor, Indonesia

#### Taman Safari Indonesia

*M* 1986 January 18 – 1986 January 30 †  
 'Barend' 079-PRY 8  
 From Antwerp (via Gelsenkirchen). See Fig. 138.

*M* 1986 January 18 –  
 'Norbert' 320-RUH 1  
 From Gelsenkirchen.

*M* 1986 January 18 –  
 'Abeeku' 826-ONT 3  
 From Gelsenkirchen.

*F* 1986 January 18 – 1986 February 18 †  
 'Bieke' 292-ANT 5  
 From Antwerp (via Gelsenkirchen).

*F* 1986 January 18 – 1986 June 8 †  
 'Julia' 798-WPB 25  
 From West Palm Beach (via Wingst, Firma Ruhe).

*M* 1986 February 4 –  
 'Willem' 167-ARN 3  
 From Arnhem.

*F* 1986 February 4 –  
 'Dini' 173-ARN 9  
 From Arnhem.



Fig. 138. Vignette of Bogor's Safari Park.

### Borås, Sweden

#### Borås Djurpark

This park was opened in 1962. During the summer months, the rhinos are kept in a 20,000 m<sup>2</sup> savanna enclosure, together with giraffes, zebras, buffaloes, blesbuck, eland, ostriches, and guineafowl. It seems that the arrival dates of the pair from 1965 are uncertain. According to records in Hannover, both animals left there together on 6th September 1965. See Fig. 139.

*F* 1965 August 15 –  
 'Sibini' 010-BOR 2  
 Caught in 'Umfoloji (via Ruhe, Hannover). It was three years old on arrival.

*M* 1965 November 1 –  
 'Keten' 009-BOR 1  
 Caught in Umfolozi (via Ruhe, Hannover). It was three years old on arrival.

### Bratislava, Slovakia

#### Zoologická Zahrada

*M* 1986 September 5 –  
 Caught in South Africa and was two or three years old on arrival.

*F* 1986 September 5 –  
 Caught in South Africa and was two or three years old on arrival.

*F* 1986 September 5 –  
 Caught in South Africa and was two or three years old on arrival.

### Brownsville, TX, USA

#### Gladys Porter Zoo

*M* 1970 September 11 –  
 'Kabi' 189-BRO 1  
 Caught in Natal. It was two years old on arrival.

*F* 1970 September 11 –  
 'Nobela' 190-BRO 2  
 Caught in Natal. It was two years old on arrival.



Fig. 139. Pair of white rhinoceros in Boras, 1993.

*M* 1972 November 7 – 1975 November 20 †  
 'Cetewayo' 215-BRO 3  
 Caught in Natal. It was two years old on arrival.

*F* 1972 November 7 – 1976 January 10 †  
 'Pampata' 216-BRO 4  
 Caught in Natal. It was two years old on arrival.

*M* 1987 January 8 – 1994 August 4  
 'Shaha' 202-STA 4  
 From San Antonio. To Johnson City.

*F* 1988 May 19 –  
 'Tilly' 620-KNO 4  
 From Knoxville.

*M* 1990 December 14 –  
 'Stormy' 1041-BRO 5  
 Born to Kabi (189) and Tilly (620).

*M* 1994 July 21 –  
 'Bwana' 1042-BRO 6  
 Born to Kabi (189) and Tilly (620).

### Brunkensen, Germany

#### Unidentified collection

This collection was owned by the Ruhe firm, but the exact name is unknown.

*M* 1982 July 21 – 1984 March 6  
 'Lulu' 676-KNO 9  
 From Knoxville. To Halle.

*F* 1983 September 2 – 1985 April 22  
 'Kifaru' 773-SAW 58  
 From San Diego Wild Animal Park (via Wingst). To Halle.

### Budapest, Hungary

#### Zoological Gardens

*M* 1983 May 19 –  
 'Churchill' 578-LNG 8  
 From Warminster.

*F* 1983 October 8 –  
 'Lulu' 902-BUD 1  
 Caught in Natal when it was three years old.



**Buenos Aires, Argentina***Circo Fuentes Gasca**M* 1985 July 22 –

From Santo Domingo.

884-DOM 7

*F* 1977 November 14 –  
'Ukoko' ('Paddy')  
From Dublin.

071-WHI 2

**Burford, UK***Cotswold Wildlife Park*

This park was opened to the public in 1969. The rhinos are kept in an enclosure near the Manor House, which was built in 1804, owner John Heyworth. See Fig. 140.

*M* 1972 May 1 –  
'Sontuli' ('Bull')  
Caught in Natal.

400-CTW 1

*F* 1972 May 1 –  
'Lebombo' ('Bella')  
Caught in Natal.

401-CTW 2

**Bussolengo, Italy***Circo Medrano*

This circus is owned by Heini Demmer. Bussolengo is a small town near Langato, where Demmer has a safari park.

*M* 1980 –

368-DEM 5

From Langato Safari.

*F* 1980 –

367-DEM 4

From Langato Safari.

*M* 1988 December – 1992 October 31

305-DEM 1

From Langato Safari. To Cairo.



Fig. 140. Postcard of the Manor House at Burford (1993).

*F* 1988 December –  
From Langato Safari.

306-DEM 2

*M* 1988 September 22 –  
'Bender'  
From Toronto.

213-SAW 66

### Cairo, Egypt

#### Giza Zoological Gardens

*M* 1982 May 16 – 1986 December 6 †  
670-MAD 3  
From Madrid.

*F* 1982 May 16 –  
671-MAD 4  
From Madrid.

*F* 1983 March 12 –  
'Edita'  
From Liberec. 113-DVU 4

*M* 1992 October 6 –  
946-RAG 20  
From Ramat-Gan.

*M* 1992 October 31 –  
305-DEM 1  
From Bussolengo.

### Calarasi, Romania

#### Municipal Zoo

*M* 1989 April 24 –  
'Frans'  
From Hilvarenbeek. 906-BBE 15

*M* 1989 April 24 –  
'Storm'  
From Arnhem. 942-ARN 20

### Calgary, Alberta, Canada

#### Calgary Zoological Society

*M* 1966 May 14 – 1987 December 17 †  
'Duncan' 046-YYC 1  
Caught in Umfolozi when it was two years old.

*F* 1966 May 14 – 1994 December 15 †  
'Janet' 047-YYC 2  
Caught in Umfolozi when it was two years old.

### Canton [=Guangzhou], China

#### Zoological Gardens Kwangchow

*M* 1979 December 4 –  
'Paghati' 142-SAW 1  
From San Diego Wild Animal Park.

*F* 1979 December 4 – 1979 December 4 †  
'Uhtandi' 151-SAW 10  
From San Diego.

### Carabobo, Venezuela

#### Parque Safari

*M* 1975 July 28 – 1986 †  
321-CBO 1  
Caught in Natal when it was three years old.

*M* 1975 July 28 –  
322-CBO 2  
Caught in Natal when it was two years old.

*M* 1975 July 28 – 1977 August 1  
323-CBO 3  
Caught in Natal when it was two years old. To Caracas.

*F* 1975 July 28 – 1977 August 1  
324-CBO 4  
Caught in Natal when it was one year old. To Caracas.

*F* 1975 July 28 –  
325-CBO 5  
Caught in Natal when it was one year old.

*F* 1975 July 28 –  
326-CBO 6  
Caught in Natal when it was one year old.

*F* 1975 July 28 –  
327-CBO 7  
Caught in Natal when it was one year old.

**Caracas, Venezuela***Parque Zoologico Caracuao**M* 1977 August 1 –

'Samson'

323-CBO 3

From Carabobo.

*F* 1977 August 1 –

'Dalila'

324-CBO 4

From Carabobo.

**Catskill, NY, USA***Catskill Game Farm, Inc**M* 1962 September 5 –

'Chippie'

025-CAT 1

Caught in Natal. It was two years old on arrival (Reynolds 1962c: 126).

*F* 1962 September 5 – 1992 April 22 †

'Barbara'

026-CAT 2

Caught in Natal. It was two years old on arrival. It was said to have died of old age.

**Center Hill, FL, USA***Rare Feline Breeding Compound (dealer)**M* 1977 April 27 – 1981 September 2

631-CNH 1

From Doswell. To unknown destination.

*F* 1977 April 27 – 1981 February 9

632-CNH 2

From Doswell. To Puerto Rico.

*M* 1979 May 27 – 1982 †

633-CNH 3

Born to 631 and 632. Baby advertized together with parents for \$20,000 in *International Zoo News*, 26 (7/8), p. 41 (Oct/Dec. 1979).**Cerza, France***Cerza Zoo**M* 1994 April 19 –

'Chris'

1010-WHI 58

From Whipnade.

*F* 1994 April 19 –

'Shimha'

989-EDB 8

From Edinburgh.

**Chester, UK***North of England Zoological Society**M* 1962 July 31 – 1990 July 16

'Magadiwe'

021-CHE 1

Caught in Umfolozi when it was three years old. To Romanèche.

*F* 1962 July 31 – 1984 November 21 †

'Madageni'

022-CHE 2

Caught in Umfolozi when it was two years old.

**Chicago, IL, USA***Chicago Zoological Park, Brookfield**M* 1962 September 1 – 1988 June 9

'Mshuara'

029-CHI 1

Caught in Natal when it was two years old. To Winston.

*F* 1962 September 1 – 1988 June 9

'Neva'

030-CHI 2

Caught in Natal when it was two years old (Reynolds 1962c). To Winston.

**Choushun, China***Zoological Gardens**M* 1989 September 7 –

'Rickee'

727-GSW 4

From Gunma.

*F* 1989 November 9 –

'Seren'

814-HIM 2

From Himeji.

**Christchurch, New Zealand***Orana Park Wildlife Reserve*

This park opened on 26th September 1976.

*M* 1986 May 17 – 1990 May 21

'Nakili'

823-SAW 71

From Wellington. To Winnellie.

- F* 1986 May 17 –  
'Utani' 820-SAW 68  
From Wellington.
- F* 1986 May 17 –  
'Mapnezi' 821-SAW 69  
From Wellington.
- M* 1988 November 5 –  
'Nyasa' 801-WEP 2  
From Dubbo.
- M* 1990 January 3 – 1990 May 21  
'Star' 897-STA 12  
From San Antonio. To Winnellie.
- M* 1990 January 3 – 1990 May 16  
'Memphilis' 914-MEM 8  
From Memphis. To Perth.
- M* 1990 January 3 –  
'Grano' 921-JAX 12  
From Jacksonville.
- F* 1990 January 3 – 1990 May 16  
'Mwiri' 930-SAW 90  
From San Diego Wild Animal Park. To Perth.
- F* 1993 October 12 – 1993 November 1 †  
'Seshaha' 540-SAW 43  
From Auckland, transferred by aircraft donated by the airforce. It died of injury from another rhinoceros.
- Cleveland, OH, USA**
- Cleveland Metroparks Zoological Park*
- M* 1985 May 23 –  
'Kyle' 790-KNO 10  
From Knoxville.
- F* 1986 May 26 – 1988 December 12  
'Katrina' 901-LAG 27  
From Fort Worth and returned there.
- F* 1986 June 5 –  
'Karla' 842-MEM 7  
From Memphis.
- Clifton, TX, USA**
- Texas Safari Inc.*
- F* 1981 January 17 –  
'No. 8' 570-WPB 13  
From West Palm Beach.
- F* 1981 July 4 – 1988 October 8  
'No. 10' 567-WPB 10  
From West Palm Beach. To Guadalajara.
- M* 1981 July 13 –  
'No. 3' 560-WPB 3  
From West Palm Beach.
- F* 1981 November 24 –  
'.' 703-CLI 2  
Born to No. 3 (560) and 567.
- M* 1981 November 26 – 1982 January 13 †  
'.' 702-CLI 1  
Born to No. 3 (560) and No. 8 (570).
- M* 1989 November 16 –  
'Cecil' 900-LAG 26  
From Fort Worth.
- Colchester, UK**
- Colchester Zoo*
- Player (1972) recorded that the zoo imported two males and four females from Natal between the years 1961 and 1972. Of these, 1/2 were sent to Blackpool soon after arrival in 1972. The zoo changed ownership in 1983 and the present management informed me (in litt. 23rd November 1993) that the old records are not available.
- F* 1972 April 1 –  
'Flossy' 607-COC 1  
Imported from Umfolozi. According to the stud-book, it was about 32 years old on arrival. This is rather unlikely.
- M* 1974 March 3 –  
'Simba' 088-WHI 3  
From Whipsnade.

**Cologne, Germany***Zoologischer Garten Köln*

*M* 1969 October 10 – 1990 August 23  
 'Frankie' 127-CLG 1  
 From Pretoria. To Dvur Kralove.

*F* 1972 May 17 – 1990 August 23  
 'Sanni' 199-CLG 2  
 Caught in Umfolozi and was six years old on arrival. To Dvur Kralove.

*F* 1987 July 29 – 1988 June 30  
 'Sana' 184-KRE 2  
 From Krefeld and returned there.

**Columbia, SC, USA***Riverbanks Zoological Park & Botanical Garden*

Shoemaker (1977, fig. 24) pictured the white rhinos.

*M* 1974 April 18 – 1989 April 14  
 'Samson' 379-COL 1  
 From Stockbridge. To Yulee.

*F* 1974 April 18 – 1988 November 22  
 'Daisy Mae' 380-COL 2  
 From Stockbridge. To Kings Island.

*F* 1974 April 18 – 1988 November 9  
 'Lulu' 381-COL 3  
 From Stockbridge. To Toledo.

**Columbus, OH, USA***Columbus Zoo*

*M* 1975 June 21 – 1993 November 12  
 'Pendula' 146-SAW 5  
 From San Diego Wild Animal Park. To Memphis.

*F* 1975 June 21 – 1993 November 12  
 'Delilah' 148-SAW 7  
 From San Diego Wild Animal Park. To Cumberland.

*F* 1975 December 2 – 1977 January  
 'Dynamite' 409-CMH 1  
 Born to 52 (in San Diego WAP) and Delilah (148). The studbook records the arrival of the animal in Gelsenkirchen in May 1979 (and its death there the following month), while the zoo records show that it was sold to Zeehandelaar in January 1977. Its present whereabouts are not confirmed.

*F* 1988 July 15 – 1993 October 25  
 'Luana' 081-SDF 2  
 From Kings Island. To Cumberland.

*M* 1994 December 14 –  
 'Bubba' 876-LLA 1  
 From Louisville.

*M* 1994 December 15 –  
 'Milton' 755-DOS 6  
 From Doswell (en route it stayed one day in Cumberland).

**Copenhagen, Denmark***Zoologiske Have*

Vincent (1968) reported that a pair of white rhinos was shipped by the Natal Park Board to Copenhagen between 1961 and 1968. This probably refers to the young pair arriving in May 1965, destined for Kolmarden. This male and female were on deposit in Copenhagen until May 1966. See Fig. 141.

*M* 1971 August 31 – 1972 June 25  
 'Kruger' 139-CPH 1  
 Caught in South Africa when it was four years old. To Whipsnade.

*F* 1971 August 31 –  
 'Minna' 140-CPH 2  
 Caught in South Africa when it was six years old.

*F* 1971 August 31 – 1993 January 4 †  
 'Maxa' 141-CPH 3  
 Caught in South Africa when it was six years old.

*M* 1972 June 23 –  
 'Ferdinand' 093-WHI 8  
 From Whipsnade.



Fig. 141. Postcard of a baby white rhinoceros in Copenhagen.

*F* 1974 December 4 – 1976 September 10  
 'N'gili' 231-CPH 4  
 Born to 93 and 140 (see Eriksen 1977, with photographs). There is a picture in *International Zoo News*, 21 (1), p. 37 (Dec/Jan 1975). To Bandholm.

*M* 1974 December 14 – 1976 September 10  
 'Faru' 232-CPH 5  
 Born to 93 and 141 (see Eriksen 1977, with photographs). To Bandholm.

*M* 1976 December 21 – 1979 May 14  
 'Brutus' 382-CPH 6  
 Born to 93 and 140. To Givskud.

*M* 1978 January 16 – 1979 May 14  
 571-CPH 7  
 Born to 93 and 141. To Givskud.

*M* 1979 January 17 – 1980 April 22  
 572-CPH 8  
 Born to 93 and 140. To Gänserndorf.

## Cuernavaca-Taxco, Mexico

### Zoofari

*M* 1991 October 25 –  
 'Marcelo' 1021-GUA 1  
 From Guadalajara.

## Cumberland, OH, USA

### The Wilds

#### *International Center for the Preservation of Wild Animals*

A reclaimed 9.1-acre strip mine was converted into a grassland area. In 1994, there were five white rhinos (*Really Rhinos*, 8(3), Fall 1994).

*F* 1993 November 12 –  
 'Delilah' 148-SAW 7  
 From Columbus.

*F* 1993 November 12 – 1994 August 25  
 'Luana' 081-SFO 2  
 From Columbus. To an unidentified collection in Argentina (information from Marvin Jones).

*F* 1994 April 30 –  
 'Charlie' 416-KIM 7  
 From Kings Island.

*F* 1994 April 30 –  
 'Pretty Girl' 417-KIM 8  
 From Kings Island.

*F* 1994 April 30 –  
 'Petite' 418-KIM 9  
 From Kings Island.

*M* 1994 June 3 – 1994 June 10  
 'Alfred' 753-DOS 4  
 From Doswell. To Sioux Falls.

*F* 1994 June 3 –  
 'Lucy' 750-DOS 1  
 From Doswell.

## Davis, OK, USA

### Arbuckle Wilderness

In 1995, according to information gathered by Marvin Jones, this zoo had one adult male (611, see below), as well as three adult fe-

males and one male calf. There are no details about the last four specimens.

*M* 1982 November 10 –  
'Jack' 611-WPB 11  
From West Palm Beach (via dealer).

### Deland, FL, USA

*Nautilus Corporation, Idle Hour Farm*

In 1995, Marvin Jones was unable to trace this collection. It is presumed closed. The status of these animals is unknown.

*M* 1983 November 26 – (?)  
'Chacka' 284-SAW 27  
From Kings Island. Present status unknown.

*F* 1983 November 26 – (?)  
425-IAE 7  
From International Animal Exchange. Present status unknown.

### Detroit, MI, USA

*Detroit Zoological Park*

Player (1972) recorded that a pair of rhinos was sent from Natal to Detroit before 1972. There is no other information about these animals.

### Doha, Qatar

*Municipal Zoological Gardens*

This park was opened in 1983.

*M* 1983 November 19 –  
'Tsavo' 749-EDB 3  
From Edinburgh.

*M* 1983 December 4 –  
'Mandingo' 761-WHI 44  
From Whipnade.

### Dortmund, Germany

*Tierpark*

*M* 1975 July 9 – 1993 November 18 †  
'Bwana' 369-DTM 1  
Caught in Umfolozi and was two years old on arrival. Euthanized due to poor health.

*F* 1975 July 9 – 1983 September 7 †  
'Zulu' 370-DTM 2  
Caught in Umfolozi when it was two years old. The female was pushed into the moat around the enclosure by the male. It died of metabolic collapse (Rümpler 1991a: 98).

### Doswell, VA, USA

*Kings Dominion*

*M* 1973 October 2 – 1977 April 29  
'Beauregard' 631-CNH 1  
Caught in Natal when it was two years old. To Center Hill.

*M* 1973 October 2 – 1978 July  
638-BAR 2  
Caught in Natal when it was two years old. To Barquisimeto.

*M* 1973 October 2 – 1977 April 29  
758-DOS 9  
Caught in Natal when it was two years old. To Idaho Falls.

*F* 1973 October 2 – 1976 April 16  
397-MEM 3  
Caught in Natal when it was one year old. To Memphis.

*F* 1973 October 2 – 1977 April 29  
632-CNH 2  
Caught in Natal when it was two years old. To Center Hill.

*F* 1973 October 2 – 1978 July  
637-BAR 1  
Caught in Natal when it was two years old. To Barquisimeto.

*F* 1973 October 2 – 1977 April 29  
'Rubbie' 757-DOS 8  
Caught in Natal when it was two years old. To Idaho Falls.



*M* 1973 October 3 – 1994 June 3  
 'Alfred' 753-DOS 4  
 Caught in Natal when it was four years old.  
 To Cumberland.

*M* 1973 October 3 – 1994 December 14  
 'Rufus' 754-DOS 5  
 Caught in Natal when it was four years old.  
 To Louisville.

*M* 1973 October 3 – 1976 May 12  
 759-DOS 10  
 Caught in Natal. To Penticton.

*F* 1973 October 3 – 1990 February 15 †  
 'Bumper' 751-DOS 2  
 Caught in Natal when it was four years old.

*F* 1973 October 3 – 1981 September 13 †  
 'Sally' 752-DOS 3  
 Caught in Natal when it was four years old.

*M* 1979 June 10 – 1994 December 14  
 'Milton' 755-DOS 6  
 Born to Rufus (754) and Sally (752). It was  
 exhibited in Washington from 11th May 1981  
 to 29th April 1983. To Columbus.

*F* 1979 August 28 – 1981 May 11  
 'Stormy' 756-DOS 7  
 Born to Rufus (754) and Bumper (751). To  
 Washington.

*F* 1980 October 3 – 1994 June 3  
 'Lucy' 750-DOS 1  
 Caught in Natal when it was 11 years old. To  
 Cumberland.

### Dresden, Germany

#### Zoologischer Garten

*F* 1965 August 14 – 1986 May 14 †  
 'Maguda' 006-DRE 2  
 Caught in Umfolozi (dealer Ruhe, leaving  
 Hannover 12th August 1965). It was three  
 years old on arrival.

*M* 1965 November 12 – 1989 September 25  
 'Mtandani' 005-DRE 1  
 Caught in Umfolozi (dealer Ruhe, leaving  
 Hannover on 10th November 1965). It was  
 three years old on arrival. To Berlin Tier-  
 park.

### Dubbo, New South Wales, Australia

#### Western Plains Zoo

This park opened on 28th February 1977. The  
 rhinos (in 1993) were kept in a large enclo-  
 sure with a ground area of 12,830 m<sup>2</sup>, which  
 they shared with Grant's zebra.

*M* 1980 May 6 –  
 'Thomas' 195-WOB 3  
 From Woburn.

*F* 1980 May 6 – 1988 November 4 †  
 'Tessie' 121-LNG 6  
 From Warminster (via Van den Brink, Soest,  
 the Netherlands, arriving in Sydney in March  
 1980). Died of trauma.

*F* 1980 May 6 –  
 'Nicole' 196-WOB 4  
 From Woburn (arriving in Sydney in March  
 1980).

*F* 1981 May 18 – 1981 May 20 †  
 'Sag' 747-WEP 1  
 Born to Thomas (195) and Tessie (121).

*F* 1981 November 26 – 1984 January 26 †  
 'Nandi' 342-WHI 32  
 From Sydney. Died of metabolic disease.

*F* 1981 November 26 – 1984 February 14 †  
 'Margaret' 472-WHI 33  
 From Sydney. Died of spasmodic colic and  
 shock.

*M* 1983 July 17 – 1988 October 24  
 'Nyasa' 801-WEP 2  
 Born to Thomas (195) and Nandi (342). To  
 Christchurch.

*M* 1984 May 21 – 1984 August 18 †  
 'Nkulu' 802-WEP 3  
 Born to Thomas (195) and Tessie (121). A  
 photograph was published in *International Zoo*  
*News*, 32 (3): 27, 1985. Died of acute enteritis.

*F* 1985 December 20 – 1989 July 24  
 'Likwezi' 871-WEP 4  
 Born to Thomas (195) and Tessie (121). To  
 Werribee.

*F* 1988 November 2 – 1988 November 2 †  
 'D188' 939-WEP 5  
 Stillborn to Thomas (195) and Tessie (121).

F 1989 July 26 –  
'Alexandra' 614-WHI 40  
From Werribee.

F 1991 June 24 – 1991 June 24 †  
'Digi' 979-WEP 6  
Stillborn to Thomas (195) and Alexandra (614).

## Dublin, Ireland

### Dublin Zoo

F 1976 December 10 – 1977 November 13  
'Okhuko' 071-WHI 2  
From Whipsnade. According to the zoo records, it was returned there, but in fact it went to Burford.

M 1977 November 10 –  
'Sam' 330-WHI 31  
From Whipsnade.

F 1977 November 10 – 1988 July 9  
'Sally' 328-WHI 29  
From Whipsnade and returned there.

F 1988 July 8 – 1995 July 12 †  
'Fiona' 104-WHI 41  
From Whipsnade.

F 1993 August 25 –  
'Dorothy' 1005-DUB 1  
Born to Sam (330) and Fiona (104).

## Duisburg, Germany

### Zoologischer Garten

The rhinos are housed in the Afrikanum, a savanna exhibit of about 5000 m<sup>2</sup>, where they are kept together with herds of Chapman zebra and blesbuck (Gewalt 1972).

M 1968 April 24 –  
'Hluti' 077-DUI 1  
Caught in Umfolozi, donated by Helmut Horten. It was two years old on arrival. The animal was quite tame and allowed some people to ride on its back.

F 1968 April 24 –  
'Ngoma' 078-DUI 2  
Caught in Umfolozi, donated by Helmut Horten. It was two years old on arrival.

## Durban, South Africa

### Natal Zoological Gardens

In 1972, the Natal Zoological Gardens (and Lion Park) were moved to a site near Durban.

F 1980 May 1 – 1982 †  
'Alice' 303-HNO 2  
From South Africa (private ranch: Villiersdorp), where it had come from Zululand in 1974 when it was two years old.

F 1980 May 1 –  
'Moirá' 304-HNO 3  
From South Africa (private ranch: Villiersdorp), where it had come from Zululand in 1974 when it was two years old.

## Durbanville, South Africa

### Tygerberg Zoological Preservation Trust Kraaifontein

M 1967 March 15 – 1973 †  
'Bebewan' 072-DUR 1  
Caught in Natal. The studbook recorded its death in 1973, but this may have occurred in 1972.

F 1967 March 15 – 1980 †  
'Bogocheeky' 073-TYG 2  
These dates were provided by the zoo. According to the 6th edition of the studbook (Ochs 1995), it would have died in 1978.

## Dvur Kralove, Czech Republic

### Zoological Gardens

Information on the white rhinos in Dvur Kralove was provided by Mikulica (1986, 1991) and by Vahala *et al.* (1993).

M 1970 June 2 – 1979 July 10  
'Joe' 110-DVU 1  
Caught in Natal when it was five years old. To Lesna.

F 1970 June 2 – 1979 July 17  
'Zusi' 112-DVU 3  
Caught in Natal when it was four years old. To Lesna.

- F* 1970 June 23 – 1976 June 3  
'Edita' 113-DVU 4  
Caught in Natal when it was four years old.  
To Liberec.
- F* 1970 June 23 – 1980 November 9  
'Sasa' 114-DVU 5  
Caught in Natal when it was three years old.  
To Usti nad Labem.
- M* 1970 October 15 – 1980 December 4  
'Dan' 111-DVU 2  
Caught in Natal when it was four years old.  
To Usti nad Labem.
- F* 1970 October 15 – 1979 April 27  
'Vanda' 115-DVU 6  
Caught in Natal when it was three years old.  
To Al Ain (via Gelsenkirchen).
- F* 1972 May 31 – 1974 October 30  
'Dinah' 208-DVU 7  
Caught in Natal when it was two years old. To  
Ostrava.
- F* 1972 May 31 – 1980 November 19  
'Zamba' 209-DVU 8  
Caught in Natal when it was two years old. To  
Usti nad Labem.
- F* 1972 May 31 – 1980 October 29  
'Tessa' 210-DVU 9  
Caught in Natal when it was two years old. To  
Wroclaw.
- F* 1972 May 31 – 1980 November 4  
'Faith' 211-DVU 10  
Caught in Natal when it was two years old. To  
Katowice.
- M* 1973 July 9 – 1974 October 30  
'Natal' 371-DVU 11  
Caught in Natal when it was two years old. To  
Ostrava.
- M* 1976 September 7 – 1976 October 19  
279-WHI 28  
From Gelsenkirchen. To Liberec.
- F* 1977 October 5 – 1980 October 29  
'Smudla' 307-DEM 3  
From Langato. To Wroclaw.
- F* 1978 April 4 – 1979 July 26  
'Fatty' 530-DVU 20  
Born to Dan (111) and Faith (211). To  
Veszprem.
- M* 1978 December 16 – 1980 October 29  
'Teny' 531-DVU 21  
Born to Dan (111) and Tessa (210). To Wro-  
claw.
- M* 1990 August 24 –  
'Frankie' 127-CLG 1  
From Cologne.
- F* 1990 August 25 –  
'Sanni' 199-CLG 2  
From Cologne.
- M* 1993 April 16 –  
'Doran' 970-UNL 2  
From Usti.
- Edinburgh, UK**
- Royal Zoological Society of Scotland
- M* 1976 May 10 –  
'Kruger' 139-CPH 1  
From Whipsnade.
- F* 1976 May 10 –  
'Floozie' 097-WHI 12  
From Whipsnade.
- M* 1976 October 27 – 1979 October 24 †  
'Hamish' 393-EDB 1  
Born to unknown male (in Whipsnade) and  
Floozie (97).
- F* 1979 October 19 – 1981 October 15  
'Rhona' 651-EDB 2  
Born to Kruger (139) and Floozie (97). To Paris.
- M* 1982 September 3 – 1983 November 19  
'Tsavo' 749-EDB 3  
Born to Kruger (139) and Floozie (97). To Doha.
- F* 1985 March 10 – 1985 March 10 †  
855-EDB 4  
Stillborn to Kruger (139) and Floozie (97).
- F* 1986 September 12 – 1988 May 6  
'Sula' 856-EDB 5  
Born to Kruger (139) and Floozie (97). To  
Winchester.

*F* 1988 September 2 – 1989 December 14  
'Kshoru' 937-EDB 6  
Born to Kruger (139) and Floozie (97). To Whipsnade.

*F* 1990 September 24 – 1992 June 17  
'Mikumi' 962-EDB 7  
Born to Kruger (139) and Floozie (97). To Whipsnade.

*F* 1992 August 25 – 1994 April 19  
'Shimba' 989-EDB 8  
Born to Kruger (139) and Floozie (97). To Cerza.

*F* 1994 July 1 –  
'Meru' 1026-EDB 9  
Born to Kruger (139) and Floozie (97).

### Edmonton, Alberta, Canada

#### Alberta Game Farm

*M* 1963 – 1983 June 1  
'Thombotini' 388-EDM 1  
Caught in Natal when it was two years old. To Harbin.

*F* 1963 – 1983 June 1  
'Gebutuga' 389-EDM 2  
Caught in Natal when it was two years old. To Harbin.

### Einbeck, Germany

#### Circus Siemoneit-Barum

*M* 1978 July 12 –  
'Tsavo' 508-EIN 1  
Caught in South Africa, imported by Müller, a dealer in Krechting. It was four years old on arrival. It was quite tame and never showed any signs of aggression. It is part of the circus act. See Figs. 142, 164.

### El Paso, TX, USA

#### El Paso Zoo

*M* 1976 September 27 – 1983 September 29 †  
'Matt' or 'Sezela' (the sniffer) 145-SAW 4  
From San Diego Wild Animal Park. It died in

transit while being returned to San Diego Wild Animal Park.

*F* 1976 September 27 – 1983 September 29  
'Kitty' or 'Mavula' (opener) 156-SAW 15  
From San Diego Wild Animal Park and was returned there.

*F* 1977 September 4 – 1983 September 29  
'Daisy Mae' 599-SAW 74  
Born to Mpondo (152, in San Diego Wild Animal Park) and Kitty (156). To San Diego Wild Animal Park.

### Emmen, The Netherlands

#### Noorder Dierenpark

The rhinos are shown in an Africa-savanna exhibit, which is a large enclosure in the centre of the zoo, together with giraffe, springbuck, impala, waterbuck, wildebeest, zebra, and ostrich. At night, they are kept in three stalls reached by an underpass.

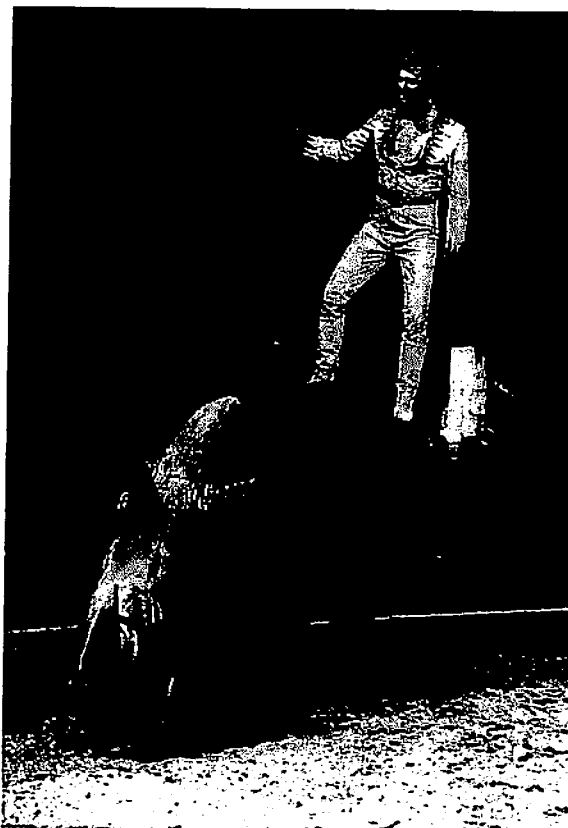


Fig. 142. Einbeck's Circus Siemoneit-Barum, white rhinoceros 'Tsavo' being ridden by Sacha Houcke Jr in 1985.

*M* 1975 May 10 –  
 'Bort' 343-EMM 1  
 Caught in Natal when it was four years old.  
 See Fig. 143.

*F* 1975 May 10 –  
 'Jenny' 344-EMM 2  
 Caught in Natal (dealer Van den Brink). It  
 was two years old on arrival. See Fig. 143.

*F* 1991 November 28 –  
 'Gingabelle' 907-WHI 55  
 From Whipsnade.

### Erfurt, Germany

#### Thuringer Zoopark

*F* 1981 October 21 –  
 649-SAW 51  
 From San Diego Wild Animal Park (via  
 Wingst).

*M* 1982 February 25 –  
 'Lestzler' 627-MEM 4  
 From Memphis (via Gelsenkirchen).

### Europe

#### Circuses and travelling menageries

There have been a few white rhinos in European circuses since 1966. There is very little information available on these animals, with a few exceptions. These are listed separately (see under Einbeck, Stolberg and Rapperswil). The following list of white rhinos exhibited in European circuses in 1990 was compiled by Richard Reynolds with the help of Flavio Togni of the Italian Circus Americana.

*M* 'Tsavo': Circus Barum, Germany. Trained by Charles Knie, presented by Sascha Houcke Jr. (see Einbeck, Germany).

*M* 'Circus Caesar Togni, Italy. Trained and presented by Elvio Togni.

*F* Circus Lidia Togni, Italy. Trained and presented by Vinicio Canestrelli.

*M* Circus Darix Togni, Italy. Presented by Davio Togni.

*F* 'Jumba': Circus Moira Orfei, Italy. Trained by Charles Knie, presented by Stephano Nones.

*M* (young): Circus Medrano, Italy. Presented by Heros Casertellia. [see Bussolengo, Italy]

*M* Circus Mbel Riva, Italy. Presented by Roberto Bellucci.

*M* Circus Alberto Althoff, the Netherlands.



Fig. 143. Pair of white rhinoceros in Emmen (male 'Bort' on the left, next to female 'Jenny').

*M* 'Thor': Circus Americana, Italy. Trained and presented by Flavio Togni. This animal was said to have been born in September 1987 at Longleat Park (Warminster). It was acquired by the circus in November 1988 and was seen during the tour of Germany in 1989. In November 1989 it went with the circus to Florida, USA, and performed with the Blue Unit of Ringling-Barnum Circus in 1990.

Another circus rhinoceros is included in the studbook (Klös and Frese 1993):

*M* Circus Atlas, Germany. This animal arrived on 21st June 1989 from Gelsenkirchen. Its studbook No. is 927-JAX 13.

There may have been another animal as follow:

*M* Circus Casartelli of Italy included an eight-year-old male called 'John' in their act in February 1996, when performing at Monte Carlo's Festival du Cirque International.

### Fasano di Puglia, Italy

#### Zoosafari di Fasano

This park opened on 12th August 1972. In 1972 they ordered two white rhinos (*International Zoo News*, 19 (7/8), p.284, December 1972).

*M* 1977 November 10 –  
'Umfann' 556-FAS 1  
Caught in Natal. It was two years old on arrival.

*F* 1977 November 10 –  
'Ntombi' 557-FAS 2  
Caught in Natal. It was two years old on arrival.

*F* 1987 September 25 – 1987 November 1  
'Veronica' 866-HOD 12  
From Hodehagen. To Belpasso.

### Fort Worth, TX, USA

#### Zoological Park

*M* 1968 May 23 – 1989 January 13  
'Mnumzaan' 082-FOW 1  
Caught in South Africa. To Glen Rose.

*F* 1968 May 23 – 1989 January 14  
'Masipula' 083-FOW 2  
Caught in South Africa. To Glen Rose.

*M* 1982 December 10 – 1983 July 5  
'Mac' 050-LAX 1  
From Los Angeles. To Llano.

*F* 1982 December 10 – 1983 June 4  
'Tasha' 051-LAX 2  
From Los Angeles. To Llano.

*M* 1985 September 25 – 1989 January 16  
'Cecil' 900-LAG 26  
From Laguna Hills. Exhibited in Louisville from 25th May 1986 to 2nd December 1988. In 1989 it was sent to Clifton.

*F* 1985 September 25 – 1989 March 31  
'Katrina' or 'Lil'bit' 901-LAG 27  
From Laguna Hills. Exhibited in Cleveland from 26th May 1986 to 2nd December 1988. To International Animal Exchange in 1989, but no record of the final destination.

*M* 1990 December 15 –  
'Ben' 463-LTR 1  
From Little Rock.

*F* 1991 October 18 –  
'Sue' 464-LTR 2  
From Little Rock.

### Fresno, CA, USA

#### Chaffee Zoological Gardens

*M* 1971 September 19 – 1990 May 29  
'Fodder' 187-FRE 1  
Caught in Natal, imported through F. Van den Brink. It was three years old on arrival. To San Diego Wild Animal Park.

*F* 1971 September 19 – 1994 July 11  
'Mudder' 188-FRE 2  
Caught in Natal, imported through F. Van den Brink. It was three years old on arrival. To San Diego WAP.

**Fuengirola, Spain***Parque Zoologico*

*M* 1993 February 8 –  
'Willem' 1008-BBE 18  
From Hilvarenbeek.

*M* 1993 March 4 –  
'Knorpel' 404-MUR 4  
From Münster.

*M* 1994 September 21 –  
'Donky' 987-HOD 18  
From Hodenhagen.

*F* 1994 September 21 –  
'Una' 988-HOD 19  
From Hodenhagen.

**Fujiwara, Shizuoka Prefecture, Japan***Fuji Safari Park*

In some records, this park is located in Susono City. This is the same place.

*M* 1979 October 25 – 1991 June 26  
'Kuzu' 677-KOI 1  
From International Animal Exchange. To Morioka City.

*M* 1979 October 25 –  
'Tsurumi' 678-KOI 2  
From International Animal Exchange.

*M* 1979 October 25 – 1979 November 20 †  
'Satan' 679-KOI 3  
From International Animal Exchange.

*M* 1979 October 25 – 1985 June 7 †  
'Scarface' 680-KOI 4  
From International Animal Exchange.

*M* 1979 October 25 – 1982 November 20  
'Thumper' 681-KOI 5  
From International Animal Exchange. To Kyushu.

*M* 1979 October 25 – 1980 March 25 †  
'Six Flags' 682-KOI 6  
From Jackson, NJ.

*M* 1979 October 25 –  
'Arubarti' 683-KOI 7  
From Jackson, NJ.

*F* 1979 October 25 –  
'Savanna' 423-IAE 5  
From International Animal Exchange.

*F* 1979 November 2 –  
'Yufu' 426-IAE 8  
From International Animal Exchange.

*F* 1979 November 2 – 1990 †  
'Kei' 427-IAE 9  
From International Animal Exchange.

*F* 1979 November 2 –  
'Otsu' 428-IAE 10  
From International Animal Exchange.

*F* 1979 November 2 – 1979 December 16 †  
035-PHX 2  
From Phoenix.

*M* 1982 March 1 –  
'Fujio' 745-KYU 12  
From Kyushu. Exhibited in Yokohama from 18th September 1990 to 29th July 1991.

*F* 1982 March 1 –  
'Fujiko' 746-KYU 13  
From Kyushu.

**Fukuoka, Kyushu Island, Japan***Fukuoka Zoo*

*M* 1976 May 20 –  
'Rock' 510-FUK 1  
Caught in Natal when it was five years old.

*F* 1976 May 20 –  
'Rocky' 511-FUK 2  
Caught in Natal when it was three years old.

**Gänserndorf, Germany***Safari Park*

This park is part of the Ruhe firm.

*M* 1975 March 25 – 1979 December 7  
'Norbert' 320-RUH 1  
Caught in Natal when it was three years old.  
To Gelsenkirchen.



*M* 1976 May 19 – 1979 December 7  
'Anton' 278-WHI 27  
From Whipsnade. To Gelsenkirchen.

*M* 1979 June 9 – 1980 May 9  
'Tonka' 534-SAW 37  
From San Jose. To Gelsenkirchen.

*M* 1980 April 22 – 1980 May 9  
572-CPH 8  
From Copenhagen. To Gelsenkirchen.

### Gauhati, Assam, India

#### Assam State Zoo

*M* 1969  
Vincent (1970) and Player (1972) recorded that one male specimen had been shipped to Calcutta in the months between February and December 1969. In 1995 the zoo had a single animal, which was assumed to be the one imported from Natal in 1969.

### Gdansk, Poland

#### Zoological Gardens

*M* 1983 May 12 – 1986 March 21 †  
'Sumik' 684-KAT 3  
From Katowice.

### Gelsenkirchen, Germany

#### Ruhr Zoo

This zoo is owned by the dealer L. Ruhe. Many animals have passed through it. Most of the white rhinos only stayed for a short period.

*M* 1967 May 20 – 1968 August 23  
'Conny' 007-GEL 1  
Caught in Natal when it was one year old. To Leipzig.

*F* 1967 May 20 – 1968 August 23  
'Wally' 008-GEL 2  
Caught in Natal when it was one year old. To Leipzig.

*M* 1972 May 12 – 1972 October 13  
552-KIV 1  
Caught in Natal when it was two years old. To Kiev.

*F* 1972 May 12 – 1972 October 13  
553-KIV 2  
Caught in Natal when it was two years old. To Kiev.

*M* 1973 June 30 – 1973 August 12  
554-ROS 1  
Caught in Natal when it was eight years old. To Rostov.

*F* 1973 June 30 – 1973 August 12  
555-ROS 2  
Caught in Natal when it was two years old. To Rostov.

*M* 1976 January 5 – 1976 September 7  
279-WHI 28  
From Whipsnade. To Dvur Kralove.

*F* 1976 May 1 – 1977 March 29  
403-MUR 3  
From San Roque. To Münster.

*M* 1978 June 20 – 1979 December 18  
169-ARN 5  
From Arnhem. To Neuwied.

*F* 1979 May 20 – 1979 June 17 †  
409-CMH 1  
From Columbus. The animal was in a poor state on arrival, it had lost its horn during transfer.

*M* 1979 December 7 – 1982 September 23  
278-WHI 27  
From Gänserndorf. To Neuwied.

*M* 1979 December 7 – 1986 January 18  
320-RUH 1  
From Gänserndorf. To Bogor.

*M* 1980 May 5 – 1988 May 13 †  
534-SAW 37  
From Gänserndorf. Shipped to Sandton, but died in transit.

*M* 1980 May 9 – 1988 May 13 †  
572-CPH 8  
From Gänserndorf. Shipped to Sandton, but died in transit.

*M* 1982 March 17 – 1984 March 2  
664-LAG 25  
From Laguna Hills. To Rome.

- M* 1985 August 28 – 1986 January 18  
826-ONT 3  
From Toronto. To Bogor.
- F* 1985 October 11 – 1986 October 10  
809-JAX 9  
From Jacksonville. To Riyadh.
- F* 1986 May 13 – 1987 February 17  
797-HOD 10  
From Hodenhagen. Sold to an unidentified dealer in Apeldoorn, the Netherlands, who again sold it to Serranova. Its final destination is not known.
- F* 1986 June 27 – 1988 May 11  
831-STA 11  
From San Antonio. To South Africa (private ranch: Johannesburg Hurn) (via Sandton).
- M* 1986 July 12 – 1987 February 17  
827-KNO 13  
From Knoxville. Sold to an unidentified dealer in Apeldoorn, the Netherlands, who again sold it to Serranova. Its final destination is not known.
- F* 1986 October 15 – 1988 May 13  
836-HOD 11  
From Hodenhagen. To South Africa (private ranch: Krugersdorp) (via Sandton).
- M* 1987 April 23 – 1988 May 13  
843-SAW 76  
From San Diego Wild Animal Park. To Sandton.
- M* 1987 April 23 – 1988 May 13  
862-SAW 79  
From San Diego Wild Animal Park. To South Africa (private ranch: Rietvlei Dam) (via Sandton).
- M* 1987 December 2 – 1988 May 11  
908-SAW 83  
From San Diego Wild Animal Park. To South Africa (private ranch: Johannesburg Hurn).
- M* 1988 March 23 – 1989 June 21  
927-JAX 13  
From Jacksonville. To Europe: Circus Atlas.
- M* 1988 November 4 – 1988 December 1 †  
926-SAW 87  
From San Diego Wild Animal Park. Shipped to Sandton, but died in transit.
- M* 1989 July 14 – 1990 June 7  
888-KAT 5  
From Katowice. To Plaisance.
- Genk, Belgium**
- Limburgse Zoo Zwartberg*
- M* 1980 August 5 – 1980 †  
'Charly' 193-WDB 1  
From Hodenhagen (via Gelsenkirchen). According to the 6th edition of the studbook (1995), it was transferred to an unidentified collection in Iran in 1980.
- F* 1980 August 5 –  
'Franziska' 495-HOD 5  
From Hodenhagen (via Gelsenkirchen).
- M* 1981 May 26 –  
'Charly II' 645-GEN 1  
Born to Charly (491) and Franziska (495), conceived in Hodenhagen.
- F* 1982 June 7 –  
'Mabigiwa' 014-ROT 2  
From Rotterdam.
- F* 1983 January 29 –  
785-GEN 2  
From Sprintmont.
- M* 1983 April 8 –  
'Nikosaan' 013-ROT 1  
From Rotterdam.
- Gentry, AR, USA**
- Wild Wilderness*
- The owner of this collection reported to Marvin Jones in 1995 that he never had any white rhinoceroses. However, the records in San Diego show that 783 was sent here.
- M* 1987 April 1 – (?)  
'Ungus' 783-SAW 61  
From San Diego. Present status unknown.

**Givskud, Denmark**

*Lovepark Safariland*

*M* 1979 May 14 – 1994 January  
'Brutalis' 382-CPH 6  
From Copenhagen. This animal became increasingly aggressive and caused at least \$223,000 worth of damage to fences and cages. It was transferred to Ongava Game Reserve in Namibia (*Really Rhinos*, 8 (1), p. 2, Spring 1994).

*M* 1979 May 14 – 1980 October 29 †  
571-CPH 7  
From Copenhagen.

*F* 1982 October 10 –  
'Sophie' 652-LNG 9  
From Warminster.

*F* 1982 October 10 –  
'Eva' 653-LNG 10  
From Warminster.

*M* 1990 August 8 –  
'George' 712-PRC 8  
From Aalborg.

*M* 1994 December 31 – 1995 December 18 †  
'Karl' 007-GEL 1  
From Bandholm.

**Glasgow, UK**

*Zoological Society of Glasgow*

*M* 1975 June 24 –  
090-WHI 5  
From Whipsnade.

*M* 1975 June 24 – 1981 November 4  
'Gingindhlovu' 091-WHI 6  
From Whipsnade. To Paris.

*F* 1986 October 17 – 1995 December 16 †  
'Mashobeni' 020-LON 2  
From London.

**Glen Rose, TX, USA**

*Fossil Rim Wildlife Centre*

*F* 1988 November 28 –  
'Henrietta' 219-SAW 20  
From Philadelphia.

*M* 1988 December 15 –  
'Niondo' 031-MKE 1  
From Milwaukee.

*M* 1989 January 20 –  
'Dudley' 082-FOW 1  
From Fort Worth.

*F* 1989 January 20 –  
'Pokey' 083-FOW 2  
From Fort Worth.

*M* 1989 July 7 – 1993 June 23  
'Ollie' 898-PHX 7  
From Phoenix. To Waco.

*M* 1989 November 14 –  
'Mac' 050-LAX 1  
From Llano.

*F* 1989 November 14 –  
'Tosha' 051-LAX 2  
From Llano.

*F* 1989 December 14 –  
'Macite' 147-SAW 6  
From San Diego Wild Animal Park.

*M* 1991 December 31 – 1991 December 31 †  
Born to Mac (50) and Macite (147), died the same day.

*F* 1992 December 6 –  
'Equinox' 1027-FOS 1  
Born to Mac (50) and Tosha (51).

**Granby, Quebec, Canada**

*Société Zoologique de Granby*

*M* 1987 April 22 –  
'Yekisamga' ['Ugly'] 748-ONT 2  
From Toronto.

*F* 1988 October 17 – 1990 August 12 †  
'Dolly' 947-GRA 1  
From Aldergrove. It died of a pulmonary infec-

tion after regurgitation of a small plastic bag through the pharynx and nostril.

### Grand Prairie, TX, USA

*Lion Country Safari, Inc.  
International Wildlife Park.*

This was one of the four safari parks started by Lion Country Safari, Inc. at the end of the 1960s (the others are at Laguna Hills, Stockbridge and West Palm Beach). The actual number of white rhinos in these parks is difficult to ascertain. In 1970, the Natal Parks Board shipped two males and four females to 'Fort Worth' (Vincent 1971, note), which should refer to the Lion Country Safari Park, as Grand Prairie is located just outside that town. Between August and October 1970, another female was added (Vincent 1971). It is rather strange that none of these animals appear to have been recorded in the studbook. It is possible that these, or some of these, were actually listed in the studbook, as arrivals in IAE Ferndale in 1972, when they took over the park. On 12th May 1973, the *Fort Worth Star Telegram* reported that, on the previous day, "ten white rhinos were uncrated at Lion Country Safari". One other animal had died at sea. Including these ten new arrivals, there were 25 white rhinos in Grand Prairie at that time.

Lion Country Safari gave up its business in Grand Prairie, TX (near Fort Worth) a few years later, in around 1974. At that time, the park and the available animals were taken over by International Animal Exchange (office in Ferndale, MI), and the park was renamed the International Wildlife Park. The park flooded regularly and was closed to the public, but at this time (1995) IAE still use it as a holding facility. The animals kept by IAE are listed under that name, in the realization that many were present in Grand Prairie. There is no exact information as to which animals were kept at what place. In 1984, a newspaper reported that the park contained six males and five females.

### Guadalajara, Mexico

*Zoologico Guadalajara*

Hernandez (1994) provided some general information and a photograph of some white rhinos at the zoo. See Fig. 144.

*M* 1988 July 5 –  
'Rahisi o Tanque' 420-IAE 2  
From San Diego.

*F* 1988 October 8 –  
'Soraida' 567-WPB 10  
From Clifton.

*M* 1990 December 30 – 1991 October 25  
'Marcelo' 1021-GUA 1  
Born to Rahisi (420) and Soraida (567). To Cuernavaca.

*F* 1993 December 2 –  
'Maite' 1022-GUA 2  
Born to Rahisi (420) and Soraida (567).

### Guadalupe, Mexico

*Zoologico 'La Pastora'*

*F* 1986 February 17 – 1990 March 31 †  
'Gaby' 830-MOR 5  
From Morelia.

*M* 1992 –  
1059-MOR 6  
From Morelia.

### Gunma (Prefecture), Japan

*Gunma Safari World*

*M* 1979 April 17 – 1980 July 22  
536-SAW 39  
From San Diego Wild Animal Park (via International Animal Exchange). It was shipped to an unknown collection, probably in Japan, called Elsa Wonderland, from where in 1983 it went to Nagasaki Bio Park.

*M* 1979 April 17 –  
'Ralph' 537-SAW 40  
From San Diego Wild Animal Park (via International Animal Exchange).

*M* 1979 April 17 – 1989 August 23 †  
'Abe' 539-SAW 42  
From San Diego Wild Animal Park (via International Animal Exchange).

*F* 1979 April 17 – 1983 March 5  
'Lynn' 435-IAE 17  
From International Animal Exchange. To Nagasaki Safari Park.

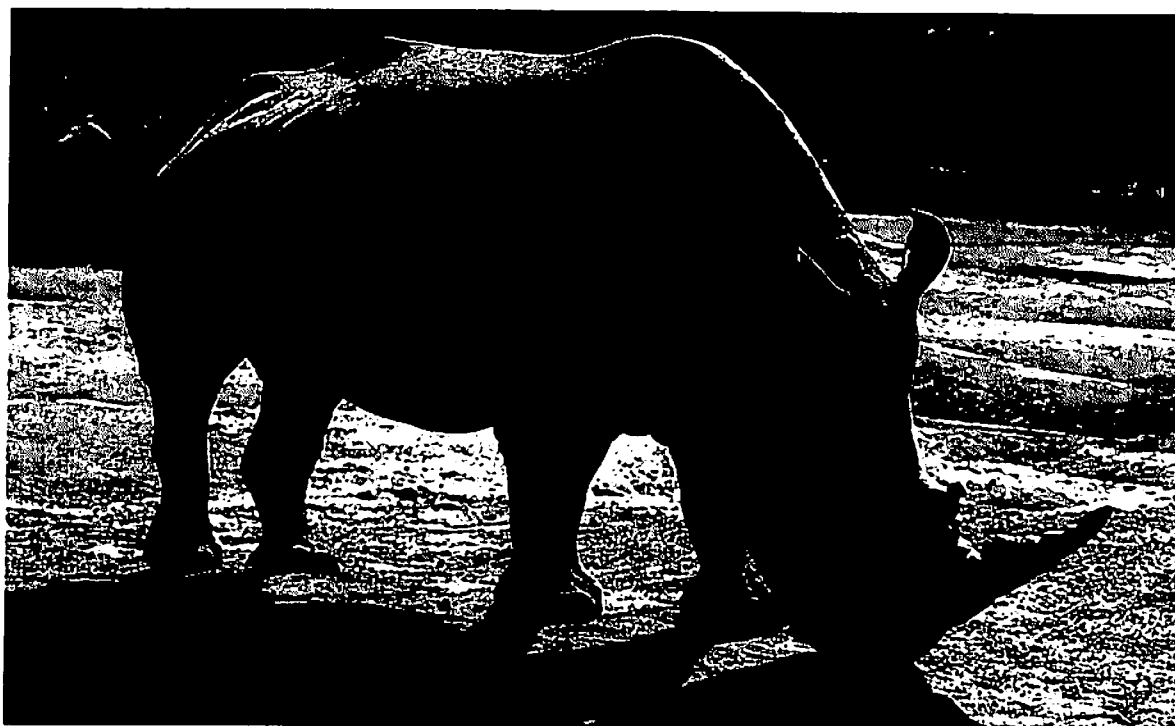


Fig. 144. White rhinoceros in Guadalajara from a postcard bought in 1994.

*F* 1979 April 17 –

'Sue' 436-IAE 18  
From International Animal Exchange.

*F* 1979 April 17 – 1982 May 9

437-IAE 19  
From International Animal Exchange. To Sendai.

*F* 1979 April 17 – 1994 January 22 †

'Sally' 547-GSW 2  
Caught in Natal when it was five years old.

*M* 1979 November 8 – 1983 February 28

548-GSW 3  
Born to unknown male and Sally (547). To Nagasaki Safari Park.

*F* 1979 November 9 – 1984 January 21 †

'Saimon' 546-GSW 1  
Born to unknown male and 435.

*F* 1980 December 26 –

'Christy' 728-GSW 5  
Born to 536 and Sue (436).

*M* 1981 March 31 – 1989 September 7

'Rickee' 727-GSW 4  
Born to 536 and 437. To Choushun.

*M* 1982 March 4 – 1983 March 3

'Antonio' 729-GSW 6  
Born to Ralph (537) and 435. To Nagasaki Safari Park.

*F* 1982 March 22 – 1989 September 7 †

'Mill' 730-GSW 7  
Born to Ralph (537) and Sally (547). Died in transit to Choushun in 1989.

### Haines City, FL, USA

#### Circus World

This collection is owned by Roman Schmitt.

*F* 1981 September 7 – 1983 March †

'Freedom' 626-KNO 8  
From Knoxville. Died in about March 1983, although the date is not certain (Schmitt to Richard Reynolds, in litt. 1994).

### Halle, Germany

#### Zoologischer Garten

*M* 1984 March 6 – 1986 October 26

'Benno' 676-KNO 9  
From Brunkensen. To Leipzig.

*F* 1985 April 22 – 1992 July 16  
 'Kifaru' 773-SAW 58  
 From Brunkensen. To Berlin Tierpark.

### Hannover, Germany

#### Zoologischer Garten

Many rhinos passed through this zoo for short periods as part of L. Ruhe's animal trading business.

*M* 1970 October 13 – 1971 August 6  
 122-HAJ 1  
 Caught in Umfolozi when it was five years old. To Mysore.

*F* 1970 October 13 – 1981 October 11 †  
 123-HAJ 2  
 Caught in Umfolozi when it was two years old. The animal was about one month pregnant on arrival in Hannover (gave birth in January 1971). Exhibited in Berlin Tierpark from 21st July 1971 to 8th November 1971. The date of death was changed to 11th February 1991 in the 6th edition of the studbook (1995).

*M* 1971 January 2 – 1972 July 5  
 'Teodor' 124-HAJ 3  
 Born to mother 123. This was the first white rhino birth outside Africa (Dittrich 1971, with pictures). To Kaliningrad.

*M* 1971 December 16 – 1991 September 11  
 'Gustl' 239-HAJ 4  
 Caught in Natal when it was two years old. To Hodenhagen.

### Harbin, China

#### Zoological Gardens

*M* 1983 June 1 –  
 'Thombotini' 388-EDM 1  
 From Edmonton.

*F* 1983 June 1 –  
 'Gebutuga' 389-EDM 2  
 From Edmonton.

### Harwood, TX, USA

#### Noah's Land Wildlife Park

*M* 1993 –  
 'Donseni' 144-SAW 13  
 From Mitchellville.

*M* 1994 October 15 –  
 'Jack' 280-SAW 23  
 From Winston.

### Havana, Cuba

#### Zoological Gardens

The Natal Parks Board sent a pair of white rhinos to Havana between August and October 1970 (Vincent 1971). These animals may be the same pair which was said to have arrived in 1972, but there is no further information.

*M* 1972 November 2 –  
 'Nino' 308-LHC 1  
 Caught in Natal. It was four years old on arrival.

*F* 1972 November 2 –  
 'Nina' 309-LHC 2  
 Caught in Natal. It was four years old on arrival.

*M* 1973 September 6 –  
 'Libertador' 310-LHC 3  
 Caught in Natal. It was three years old on arrival.

*F* 1973 September 6 –  
 'Esperanza' 311-LHC 4  
 Caught in Natal. It was three years old on arrival.

*F* 1973 September 6 –  
 'Victoria' 312-LHC 5  
 Caught in Natal. It was three years old on arrival.

*F* 1973 September 6 –  
 'Libertad' 313-LHC 6  
 Caught in Natal. It was three years old on arrival.

F 1981 October 21 –

648-SAW 50

From San Diego Wild Animal Park (via Wingst).

### Heidelberg, Germany

#### Tiergarten

The enclosure and stables occupied by the white rhinos are described in *Chronik, Tiergarten Heidelberg*, 1980, pp. 9-15 (with photograph of rhinos).

M 1980 March 26 –  
'Jambo'

505-KRC 1

From Krechting.

F 1980 March 26 –  
'Usimba'

506-KRC 2

From Krechting.

### Hemingford, Quebec, Canada

#### Parc Safari Africain

This park was said to have some white rhinos in 1993, but no further particulars could be obtained.

### Hilvarenbeek, The Netherlands

#### Safaripark Beekse Bergen

M 1972 September 26 –  
'Oscar'

221-BBE 1

Caught in Natal when it was three years old.

F 1972 September 26 – 1975 November 16 †  
'Buffy'

132-STU 2

From Stukenbrock.

F 1972 September 26 – 1979 July  
'Bianca'

222-BBE 2

Caught in Natal when it was three years old. To Osnabruck.

F 1972 September 26 –  
'Nelly'

225-BBE 5

Caught in Natal when it was one year old.

F 1973 July 6 –

'Mira'

223-BBE 3

Caught in Natal when it was three years old.

F 1973 July 6 –

'Pascha'

224-BBE 4

Caught in Natal when it was two years old.

M 1976 July 7 – 1979 July 27

'Floris'

316-BBE 6

Born to Oscar (221) and Nelly (225). To Osnabruck.

M 1978 September 24 – 1982 April 28

'Dick'

486-BBE 7

Born to Oscar (221) and Nelly (225). To Krechting.

F 1978 November 22 – 1980 December 15 †  
'Olivia'

488-BBE 8

Born to Oscar (221) and Pascha (224).

M 1980 December 28 – 1982 April 28

'Clemens'

628-BBE 9

Born to Oscar (221) and Nelly (225). Sent to the Tierpark in Krechting, Germany, where it left the same month for an unknown destination.

M 1981 January 13 – 1981 January 13 †

629-BBE 10

Stillborn to Oscar (221) and Pascha (224).

F 1982 December 25 – 1984 June 23

'Noelle'

767-BBE 11

Born to Oscar (221) and Nelly (225). To Les Mathes.

M 1984 March 23 – 1985 November 28

'Christian'

796-BBE 12

Born to Oscar (221) and Pascha (224). To Les Mathes.

M 1985 August 11 – 1986 November 1

'Rafiki'

834-BBE 13

Born to Oscar (221) and Nelly (225). To Stolberg.

F 1985 October 26 –

'Kelyn'

835-BBE 14

Born to Oscar (221) and Pascha (224).

M 1987 December 4 – 1989 April 24

'Fransje'

906-BBE 14

Born to Oscar (221) and Pascha (224). Gestation 455 days. To Calarasi.



*F* 1988 October 17 –  
'Ansej' 938-BBE 16  
Born to Oscar (221) and Nelly (225).

*F* 1990 December 1 –  
'Yvonne' 964-BBE 17  
Born to Oscar (221) and Pascha (224).

*M* 1991 October 9 – 1993 February 8  
'Willem' 1008-BBE 18  
Born to Oscar (221) and an unknown female  
(identified as number 224 in the 6th edition of  
the studbook, which is impossible since she  
gave birth in December 1990). To Fuengirola.

*F* 1992 October 8 –  
'Mirjam' 1009-BBE 19  
Born to Oscar (221) and Pascha (224).

*M* 1994 September 8 –  
'Smoske' 1048-BBE 20  
Born to Oscar (221) and Nelly (225).

### Himeji City, Japan

#### Himeji Central Park

*M* 1984 January 18 –  
'Mutsu' 738-KYU 5  
From Kyushu.

*M* 1984 January 18 – 1985 May 12 †  
'Gon' 813-HIM 1  
Caught in Natal when it was five years old.

*F* 1984 January 18 – 1989 November 3  
'Seren' 814-HIM 2  
Caught in Natal when it was two years old. To  
Choushun.

*F* 1984 January 18 –  
'Nakuru' 815-HIM 3  
Caught in Natal when it was two years old.

*F* 1984 January 18 –  
'Sara' 816-HIM 4  
Caught in Natal when it was two years old.

*F* 1984 January 18 – 1986 August 20 †  
'Getti' 817-HIM 5  
Caught in Natal when it was two years old.

*F* 1984 March 3 – 1989 February 27  
'Tama' 593-KOY 3  
From Wakayama. To Yokohama.

*M* 1985 November 1 – 1990 October 4  
'Oki' 850-HIM 6  
Born to Mutsu (738) and Tama (593). To  
Tensin.

*F* 1991 December 1 – 1994 July 2  
'Tanza' 977-HIM 7  
Born to Mutsu (738) and Sara (816). To  
Wakayama.

### Hodenhagen, Germany

#### Serengeti Safari Park

Böer and Hamza (1996) reported on the be-  
haviour and breeding of the large group of  
white rhinos in this safari park. An additional  
male born on 22nd July 1995 only survived  
until 24th July.

*M* 1974 –  
'Charly' 491-HOD 1  
Caught in Natal when it was two years old. To  
Genk (via Gelsenkirchen, where it was kept  
from 15th April to 5th August 1980).

*M* 1974 – 1981 August 1  
'Bill' 492-HOD 2  
Caught in Natal when it was two years old. To  
Krechting.

*F* 1974 –  
'Paulina' or 'Dorris' 494-HOD 4  
Caught in Natal when it was five years old.

*F* 1974 – 1980 April 15  
'Franziska' 495-HOD 5  
Caught in Natal when it was four years old.  
To Genk (via Gelsenkirchen, where it was kept  
from 15th April to 5th August 1980).

*F* 1974 –  
'Molly' 496-HOD 6  
Caught in Natal when it was three years old.

*M* 1974 May 1 – 1980 August 5  
'Paulo' 193-WOB 1  
From Woburn. To Genk.

*F* 1974 May 29 – 1974 December 27 †  
'Pixie' 126-ARN 2  
From Arnhem.

*M* 1974 September 29 – 1974 November 19 †  
'Jack' 168-ARN 4  
From Arnhem.

- M* 1978 November 13 – 1981 August 1  
'Natalino' 493-HOD 3  
Born to Charly (491) and Dorris (494). Sent to Krechting, and from there to an unknown destination.
- M* 1980 June 12 – 1985 June 4  
'Charles' 581-HOD 7  
Born to Charly (491) and Molly (496). To Tripoli.
- M* 1982 August 28 – 1983 February 15 †  
'Nasi' 709-HOD 8  
Born to Charly (491) and Molly (496).
- F* 1983 August 13 – 1985 June 4  
'Heidi' 779-HOD 9  
Born to Charly (491) and Dorris (494). To Tripoli.
- F* 1984 August 24 – 1986 May 13  
'Inge' 797-HOD 10  
Born to Charly (491) and Molly (496). To Gelsenkirchen.
- F* 1985 August 8 – 1986 October 15  
'Jessica' 836-HOD 11  
Born to Charly (491) and Dorris (494). To Gelsenkirchen.
- F* 1986 September 17 – 1987 September 25  
'Veri' 866-HOD 12  
Born to Charly (491) and Molly (496). To Fasano.
- M* 1987 November 29 – 1989 April 29  
'Fabri' 905-HOD 13  
Born to Charly (491) and Dorris (494). Sent to the dealer Serranova, and then to an unknown destination.
- F* 1988 August 30 – 1994 April 27 †  
'Gea' 915-HOD 14  
Born to Charly (491) and Molly (496).
- M* 1989 September 10 – 1990 November 9  
'Lukas' 944-HOD 15  
Born to Charly (491) and Dorris (494). To Athens, Circo de Madrid.
- M* 1990 September 3 –  
'Martin' 951-HOD 16  
Born to Charly (491) and Molly (496).
- M* 1991 August 13 –  
'Kai' 969-HOD 17  
Born to Charly (491) and Dorris (494).
- M* 1991 September 11 – 1992 May 30  
'Gustl' 239-HAJ 4  
Loan from Hannover. To St. Pere.
- M* 1992 July 25 – 1994 September 21  
'Donkey' 987-HOD 18  
Born to Charly (491) and Molly (496). To Fuen-girola.
- F* 1992 December 20 – 1994 September 21  
'Una' 988-HOD 19  
Born to Charly (491) and Gea (915). To Fuen-girola.
- M* 1993 September 13 –  
'Sato' 1004-HOD 20  
Born to Charly (491) and Dorris (494).
- F* 1994 November 1 –  
'Jessika II' 1043-HOD 21  
Born to Charly (491) and Molly (496).
- Hokkaido Prefecture, Japan**
- Haiji Farm*
- M* 1985 August 27 –  
'Saiman' 733-JOB 1  
From Nasu.
- Honolulu, Hawaii, USA**
- Honolulu Zoo*
- M* 1973 January 22 – 1984 November 27 †  
'Dongola' 349-HLU 1  
Caught in South Africa (dealer Zeehandelaar) when it was about 1.5 years old.
- F* 1973 January 22 – 1984 October 8 †  
'Marsha' 350-HLU 2  
Caught in South Africa (dealer Zeehandelaar) when it was about two years old.
- M* 1986 October 30 –  
'Kruger' 841-SAW 75  
From San Diego Wild Animal Park.

*F* 1986 October 30 – 1988 November 27 †  
 'Kal' 825-SAW 73  
 From San Diego Wild Animal Park.

### Houston, TX, USA

#### *Bush Gardens*

*M* 1971 July 8 –  
 'Samburu' 191-IAH 1  
 Caught in Natal, received when it was about three years old.

*F* 1971 July 8 –  
 'Marsabit' 192-IAH 2  
 Caught in Natal, received when it was about four years old.

*F* 1989 November 19 –  
 'Mbili' 612-WPB 16  
 From West Palm Beach.

### Hudson, NH, USA

#### *Benson's Wild Animal Farm*

This collection was sold by auction in about 1990, and was found to be closed in 1995.

*F* 1978 October 21 – 1979 April 1 †  
 660-LAG 21  
 From Laguna Hills. Sold to Taipei, Lefoo Village, but died on the way.

*M* 1980 May 21 – 1987 November 22  
 'Daryll' 413-KIM 4  
 From Kings Island. To Asheboro.

*F* 1981 July 31 – 1983  
 'No. 3' 565-WPB 8  
 From West Palm Beach. To Kings Island.

*M* 1981 November 23 – 1982 September 5  
 706-HUD 1  
 Born to 562 [in West Palm Beach] and 565. Weight 90 pounds. Born between 3.00 a.m. and 5.00 a.m. Sold to the dealer Earl Tatum, but no record of the final destination.

### Idaho Falls, ID, USA

#### *Tautphaus Park Zoo*

*M* 1977 April 29 – 1979 May 1  
 758-DOS 9  
 From Doswell. To Aldergrove.

*F* 1977 April 29 – 1979 May 1  
 'Rubbie' 757-DOS 8  
 From Doswell. To Aldergrove.

### Inman, SC, USA

#### *Hollywild Animal Park*

In 1994, there would have been some white rhinos in this park. No particulars could be obtained.

### International Animal Exchange

#### *Office in Ferndale, MI, USA*

International Animal Exchange (IAE) is the animal dealing business of the two Hunt brothers. Their office was in Ferndale, MI, and this is indicated in the studbook for those rhinos which passed through their hands. However, there is no facility in Ferndale where large animals such as rhinoceroses could be kept, even temporarily. It is not clear where IAE kept the rhinos. They have a place in Port Clinton, OH, and in about 1975 they took over the safari park at Grand Prairie, TX, from Lion Country Safari, Inc. and renamed it International Wildlife Park. This park in Grand Prairie was closed to the public, but in 1995 it was still used to keep IAE animals. It is likely that the majority of animals recorded to be in the hands of IAE were in fact maintained at Grand Prairie, TX.

In 1971, IAE imported 32 white rhinos (six males and 26 females) from Natal, according to the studbook records. However, Player (1973) stated that IAE had received six males and 14 females from Natal up until March 1973, while Lion Country Safari, Inc. had received 12 males and 28 females. It appears that there may be some confusion over the rhinos imported by IAE and Lion Country Safari, as they seem to have cooperated in some places. No actual details are available.

- M* 1972 – 1983 May 6 †  
419-IAE 1  
Caught in Natal when it was four years old.
- M* 1972 – 1983 October 27  
420-IAE 2  
Caught in Natal when it was three years old.  
To San Diego Wild Animal Park.
- M* 1972 – 1982 July 27 †  
421-IAE 3  
Caught in Natal when it was five years old.
- M* 1972 – 1979 November 18  
422-IAE 4  
Caught in Natal when it was five years old.  
To Toluca.
- M* 1972 – 1990 February 14  
433-IAE 15  
Caught in Natal when it was four years old.  
To Bangkok Safari.
- M* 1972 – 1981 October 15 †  
450-IAE 30  
Caught in Natal when it was six years old.
- F* 1972 – 1979 November 2  
423-IAE 5  
Caught in Natal when it was five years old.  
To Fujiwara.
- F* 1972 – 1979 June 6  
424-IAE 6  
Caught in Natal when it was five years old.  
To Taipei, Leofoo Village.
- F* 1972 – 1983 November 26  
425-IAE 7  
Caught in Natal when it was five years old.  
To Deland.
- F* 1972 – 1979 November 2  
426-IAE 8  
Caught in Natal when it was five years old.  
To Fujiwara.
- F* 1972 – 1979 November 2  
427-IAE 9  
Caught in Natal when it was five years old.  
To Fujiwara.
- F* 1972 – 1979 November 2  
428-IAE 10  
Caught in Natal when it was five years old.  
To Fujiwara.
- F* 1972 – 1990 February 21  
'Bertha'  
429-IAE 11  
Caught in Natal when it was five years old. In  
1984 kept at Grand Prairie, TX. To Bangkok  
Safari.
- F* 1972 – 1979 November 18  
430-IAE 12  
Caught in Natal when it was five years old.  
To Toluca.
- F* 1972 – 1990 February 28  
431-IAE 13  
Caught in Natal when it was five years old.  
To Bangkok Safari.
- F* 1972 – 1980 July 5  
432-IAE 14  
Caught in Natal when it was four years old.  
To Toluca.
- F* 1972 – 1979 June 6  
434-IAE 16  
Caught in Natal when it was four years old.  
To Taipei, Leofoo Village.
- F* 1972 – 1979 April 17  
435-IAE 17  
Caught in Natal when it was four years old.  
To Gunma.
- F* 1972 – 1979 April 17  
436-IAE 18  
Caught in Natal when it was four years old.  
To Gunma.
- F* 1972 – 1979 April 17  
437-IAE 19  
Caught in Natal when it was four years old.  
To Gunma.
- F* 1972 – 1983 November 19 †  
438-IAE 20  
Caught in Natal when it was four years old.
- F* 1972 – 1979 June 6  
439-IAE 21  
Caught in Natal when it was four years old.  
To unknown destination. The number has been  
deleted from the studbook (Klös and Frese  
1993).
- F* 1972 – 1979 June 6  
440-IAE 22  
Caught in Natal when it was four years old.  
To unknown destination. The number has been

deleted from the studbook (Klös and Frese 1993).

*F* 1972 – 1979 June 6

441-IAE 23

Caught in Natal when it was four years old. To unknown destination. The number has been deleted from the studbook (Klös and Frese 1993).

*F* 1972 – 1979 June 6

442-IAE 24

Caught in Natal when it was four years old. To unknown destination. The number has been deleted from the studbook (Klös and Frese 1993).

*F* 1972 – 1979 June 6

443-IAE 25

Caught in Natal when it was four years old. To unknown destination. The number has been deleted from the studbook (Klös and Frese 1993).

*F* 1972 – 1980 †

444-IAE 26

Caught in Natal when it was two years old. In 1977, it was sent to a dealer, but its present status is not known. In the 6th edition of the studbook (1995) it is estimated to have died in 1980.

*F* 1972 – 1977 June 1 †

445-IAE 28

Caught in Natal when it was four years old.

*F* 1972 – 1977 December 15 †

446-IAE 28

Caught in Natal when it was four years old.

*F* 1972 – 1978 †

447-IAE 29

Caught in Natal when it was four years old.

*F* 1972 – 1978 November 1 †

451-IAE 31

Caught in Natal when it was six years old.

*F* 1972 – 1974 August 15

452-IAE 32

Caught in Natal when it was three years old. To Knoxville.

*F* 1972 – 1974 August 15

453-IAE 33

Caught in Natal when it was eight years old. To Knoxville.

*F* 1975 July 22 – 1976 July 6

696-STO 1

From Stockbridge. To Madison.

*M* 1975 July 22 – 1976 July 6

697-STO 2

From Stockbridge. To Madison.

*F* 1976 November 1 – 1979 April 2

704-KOY 9

From Stockbridge. To Kumamoto.

*M* 1977 August 10 – 1978 February 20 †

454-IAE 34

Born to unknown parents.

*F* 1977 October 12 – 1977 October 28 †

456-IAE 36

Born to unknown parents.

*M* 1977 October 18 – 1978 March 15 †

455-IAE 35

Born to unknown parents.

*F* 1978 May 31 – 1979 June 6

690-GRA 1

From Jackson NJ. To Taipei, Leofoo Village.

*M* 1978 October 9 – 1979 October 25

678-KOI 2

Caught in Natal when it was nine years old. To Fujiwara.

*M* 1978 October 9 – 1979 October 25

679-KOI 3

Caught in Natal when it was nine years old. To Fujiwara.

*M* 1978 October 9 – 1979 October 25

680-KOI 4

Caught in Natal when it was ten years old. To Fujiwara.

*M* 1978 October 9 – 1979 October 25

681-KOI 5

Caught in Natal when it was nine years old. To Fujiwara.

*F* 1978 October 9 – 1980 September 1 †

695-GRA 5

Caught in Natal when it was nine years old.

- F* 1979 April 1 – (?)  
'Geraldine' 206-LAG 3  
From Laguna Hills. Present status unknown.
- M* 1979 April 23 – 1979 April 25 †  
622-KNO 6  
From Knoxville.
- M* 1979 May 31 – 1979 October 25  
677-KOI 1  
From Jackson, NJ. To Fujiwara.
- F* 1979 September 15 – 1980 July 14 †  
584-IAE 37  
Born to unknown parents.
- M* 1980 May 14 – 1980 September 16 †  
410-KIM 1  
From Kings Island.
- M* 1980 May 14 –  
'Stumpy' 411-KIM 2  
From Kings Island.
- M* 1980 May 14 – 1982 August 16 †  
415-KIM 6  
From Kings Island.
- F* 1980 November 1 – 1982 November 3  
'Bonnie' 691-IAE 38  
Born to unknown parents, probably at the holding facility in Grand Prairie, TX. To Tulsa.
- F* 1980 November 23 – 1981 June 15  
698-IAE 39  
Born to 420 and 425. To Miami.
- F* 1980 December 2 – 1981 June 15  
699-IAE 40  
Born to 420 and 438. To Miami.
- M* 1981 July 1 – 1981 October 29 †  
543-SAW 46  
From San Diego Wild Animal Park.
- F* 1981 July 1 – 1981 September 25 †  
544-SAW 47  
From San Diego Wild Animal Park.
- M* 1981 July 16 – 1981 October 16 †  
694-GRA 4  
From Jackson, NJ.
- F* 1981 July 16 – 1982 November 3  
693-GRA 3  
From Jackson, NJ. To Tulsa.
- F* 1982 June 21 – 1982 July 7 †  
623-KNO 7  
From Knoxville.
- F* 1982 June 21 – 1982 July 1 †  
700-PHX 4  
From Phoenix.
- F* 1982 August 13 – 1987 September 8 †  
722-IAE 42  
Born to 433 and 425.
- F* 1982 August 14 – 1987 April 1 †  
721-IAE 41  
Born to 433 and 431.
- F* 1982 August 30 – 1984 February 22 †  
723-IAE 43  
Born to 433 and 429.
- M* 1982 October 21 – 1982 November 3  
718-GRA 6  
From Jackson, NJ. To Tulsa.
- M* 1982 October 21 – 1986 June 20 †  
719-GRA 7  
From Jackson, NJ.
- M* 1982 October 21 –  
'Eugene' 720-GRA 8  
From Jackson, NJ.
- M* 1983 October 2 –  
'Rodney' 285-SAW 28  
From San Diego Wild Animal Park.
- M* 1983 November 19 – 1984 March 1 †  
052-SAN 1  
From San Diego Wild Animal Park.
- F* 1984 November 4 – 1986 October 21 †  
818-IAE 45  
Born to 433 and 429. The *Fort Worth Star Telegram* of 9th November 1984, reported this birth at Grand Prairie, TX, and said that the mother was called Bertha.
- M* 1985 April 6 – 1985 September 15 †  
832-PHX 5  
From Phoenix.

*F* 1987 March 2 –  
851-KNO 14  
From Knoxville.

*M* 1989 April 15 –  
'Dubilo' 042-JAX 1  
From Yulee.

*F* 1992 August 26 – 1992 November 20  
043-JAX 2  
From Yulee. To Morelia.

### Iwaki City, Japan

#### Iwaki World Safari

*M* 1981 March 12 – 1984 October 10  
'Saimon' 733-JOB 1  
Caught in Natal when it was about two years old. To Nasu.

### Izu, Shizuoka Prefecture, Japan

#### Waling Safari Izu Bio Park

*M* 1977 August 4 –  
'Bou' 804-IBP 1  
Caught in Natal. It was two years old on arrival.

*F* 1977 August 4 –  
'Puu' 805-IBP 2  
Caught in Natal. It was two years old on arrival.

*M* 1985 November 17 – 1986 March 11 †  
'Taro' 521-MIY 6  
From Miyazaki.

*F* 1985 November 17 – 1991 March 3 †  
'Rumi' 515-MIY 2  
From Miyazaki.

*F* 1985 November 17 – 1995 December 28 †  
'Miyoko' 525-MIY 10  
From Miyazaki.

### Jackson, MS, USA

#### Jackson Zoological Park

*M* 1974 September 2 – 1988 September 1  
'Chuck' 473-JCK 1  
From Stockbridge. To Knoxville.

*F* 1974 September 2 – 1987 June 23 †  
'Big-B' 474-JCK 2  
From Stockbridge.

*F* 1974 September 2 –  
'Longhorn' 475-JCK 3  
From Stockbridge.

*M* 1980 December 20 –  
'Franklin' 707-JCK 4  
Caught in Natal. It was eight years old on arrival.

*F* 1987 June 23 – 1987 June 23 †  
922-JCK 5  
Stillborn to Franklin (707) and Longhorn (474).

### Jackson, NJ, USA

#### Six Flags Great Adventure (Safari Park)

The records of this safari park in the studbook are incomplete. The zoo received a large shipment of five males and eight females in 1973, probably through the dealer Chipperfield in the UK. The studbook records many births between 1975 and 1979, but no parents. All the young animals were sold off quickly up to 1982. In 1983, the dealer Schulz from Catskill still obtained one pair from Jackson, NJ.

*M* 1973 –  
'Squeak' 1106-GRA 6  
From Natal.

*M* 1973 – (?)  
From Natal. No longer present in 1995.

*M* 1973 – (?)  
From Natal. No longer present in 1995.

*M* 1973 – (?)  
From Natal. No longer present in 1995.

*M* 1973 – (?)  
From Natal. No longer present in 1995.

*F* 1973 –  
'Danya' 1101-GRA 1  
From Natal.

*F* 1973 –  
'Cousin' 1102-GRA 2  
From Natal.



- F* 1973 –  
'Quonza' 1103-GRA 3  
From Natal.
- F* 1973 –  
'Igor' 1104-GRA 4  
From Natal.
- F* 1973 –  
'Rhino' 1105-GRA 5  
From Natal.
- F* 1973 – (?)  
From Natal. No longer present in 1995.
- F* 1973 – (?)  
From Natal. No longer present in 1995.
- F* 1973 – (?)  
From Natal. No longer present in 1995.
- F* 1975 November 25 – 1977 July 11  
'Kidago' 482-PIT 2  
Born to unknown parents. To Pittsburgh.
- M* 1975 December 30 – 1977 July 11  
'Deano' 481-PIT 1  
Born to unknown parents. To Pittsburgh.
- F* 1976 October 26 – 1978 May 31  
'No. 8' 690-GRA 1  
Born to unknown parents. To International Animal Exchange.
- M* 1977 March 23 – 1979 May 31  
677-KOI 1  
Born to unknown parents. To International Animal Exchange.
- M* 1977 November 25 – 1979 October 25  
'Arubarte' 683-KOI 7  
Born to unknown parents. To Fujiwara.
- M* 1978 March 2 – 1979 October 25  
'Six Flags' 682-KOI 6  
Born to unknown parents. To Fujiwara.
- M* 1979 August 21 – 1982 October 21  
'Sonny' 719-GRA 7  
Born to unknown parents. To International Animal Exchange.
- M* 1979 September 12 – 1981 July 16  
'Doc' 694-GRA 4  
Born to unknown parents. To International Animal Exchange.
- M* 1979 November 14 – 1982 October 21  
'Eugene' 720-GRA 8  
Born to unknown parents. To International Animal Exchange.
- F* 1980 March 17 – 1981 July 16  
'Jeannie' 693-GRA 3  
Born to unknown parents. To International Animal Exchange.
- F* 1980 October 3 – 1981 July 16  
692-GRA 2  
Born to unknown parents. Traded to International Animal Exchange, and sent to Medellin on 23rd September 1982.
- M* 1981 April 13 – 1982 October 21  
'Buzbie' 718-GRA 6  
Born to unknown parents. To International Animal Exchange.
- M* 1984 August – 1989 August 20  
'Jimmy' 965-ALV 1  
Born to unknown parents. To Alvin.
- M* 1984 November – 1989 August 20  
'Gonzo' 966-ALV 2  
Born to unknown parents. To Alvin.
- F* 1990 (?) –  
Born to unknown parents. This young female was present in November 1995 and was about four or five years old.
- F* 1990 (?) –  
Born to unknown parents. This young female was present in November 1995 and was about four or five years old.
- M* 1993 (?) – 1994  
'Halloween'  
Born to unknown parents. Probably traded to the USA, Carson and Barnes Circus, in exchange for the male acquired in 1994.
- F* 1993 August 9 –  
'Princess' 1117-GRA 36  
Born to unknown parents. This young female was present in November 1995 and was about two years old.
- M* 1994 –  
From the USA: Carson and Barnes Circus, where it had been since the end of 1980.

**Jacksonville, FL, USA***Jacksonville Zoological Park*

Rost (1993) reported on the rhinos in Jacksonville.

*M* 1967 April 19 – 1984 October 31  
 'Dublo' 042-JAX 1  
 Caught in Natal when it was two years old. Exhibited in Kansas City from 3rd July 1979 to 5th January 1983. In 1984 to Yulee.

*F* 1967 April 19 – 1984 August 22  
 'Umgawa' 043-JAX 2  
 Caught in Natal when it was two years old. To Yulee.

*M* 1972 – 1974 July 18  
 616-JAX 8  
 Caught in Natal when it was two years old. From 1974, it was kept by several dealers. It was first shipped to Silver Springs (owned by Largo Wildlife Preserve, near Largo, MD), then in 1980 to J.C. Schulz in Catskill, NY, and in 1980 to Dick Songer, Greenwood Acres, Jackson, MI, where it died in 1982.

*F* 1972 – 1974 July 18  
 615-JAX 7  
 Caught in Natal when it was two years old. From 1974, it was kept by several dealers, as with the previous male No. 616.

*M* 1975 December 18 –  
 'Archie' 390-JAX 3  
 From Kings Island.

*F* 1975 December 18 – 1992 December 3  
 'Edith' 391-JAX 4  
 From Kings Island. To Yulee.

*F* 1975 December 18 – 1993 June 7  
 'Wrinkles' 392-JAX 5  
 From Kings Island. To Waco.

*M* 1979 January 26 – 1979 January 26 †  
 1030-JAX 14  
 Stillborn to unknown male and Wrinkles (392).

*F* 1979 March 5 – 1989 April 12  
 'Gloria' 533-JAX 6  
 Born to Archie (390) and Edith (391). To Yulee.

*F* 1981 November 2 – 1981 November 4 †  
 1031-JAX 15  
 Born to unknown parents (Rost 1993).

*F* 1983 January 5 –  
 'Anne' 318-KCM 2  
 From Kansas City.

*M* 1983 July 16 – 1983 July 16 †  
 1032-JAX 16  
 Stillborn to Archie (390) and Edith (391).

*F* 1985 January 15 – 1985 October 19  
 'Angela' 809-JAX 9  
 Born to Archie (390) and Edith (391). To Gelsenkirchen.

*M* 1985 March 18 – 1985 March 18 †  
 879-JAX 11  
 Stillborn to Archie (390) and Gloria (533).

*F* 1986 August 14 – 1986 August 25 †  
 'Betty Boop' 878-JAX 10  
 Born to Archie (390) and Gloria (533).

*M* 1987 January 23 – 1989 December 5  
 'Cyrano' 921-JAX 12  
 Born to Archie (390) and Edith (391). To Christchurch.

*M* 1988 March 21 – 1989 March 22  
 'Joey' 927-JAX 13  
 Born to Archie (390) and Gloria (533). To Gelsenkirchen.

*F* 1989 March 29 – 1989 April 5 †  
 'Rita' 1033-JAX 17  
 Born to Archie (390) and Edith (391).

*M* 1991 January 26 – 1993 April 13  
 'Saba' 1034-JAX 18  
 Born to Archie (390) and Edith (391). To New Orleans.

*F* 1994 July 28 – 1996 April 10 †  
 'Safari' 1035-STA 14  
 From San Antonio.

**Jakarta, Indonesia***Ragunan Zoological Gardens*

*M* 1976 August 2 –  
 713-JAK 1  
 Caught in Natal when it was three years old.

F 1976 August 2 –

714-JAK 2

Caught in Natal when it was two years old.

F 1995 November 15 –

693-GRA 3

From Tulsa.

## Johannesburg, South Africa

### Zoological Gardens

The rhinoceros enclosure is about 2000 m<sup>2</sup>. In 1993, they shared it with 12 ground squirrels (*Xerus inauris*). Previously, there had also been some warthog (*Phacochoerus aethiopicus*) in the same yard, but they were removed after a rhinoceros killed a female warthog.

M 1965 March 17 – 1975 November 21 †

'Shangoni'

062-JNB 1

Caught in Umfolozi. It was three years old on arrival.

F 1965 March 17 –

'Mojadji'

064-JNB 3

Caught in Hluhluwe. It was three years old on arrival.

M 1966 November 3 – 1984 January 24

'Mcinta-Uboba'

063-JNB 2

Caught in Umfolozi. It was four years old on arrival. To South Africa (private ranch: Marshalltown).

F 1966 November 3 – 1990 August 9 †

'Bonageli'

065-JNB 4

From Hluhluwe. It was four years old on arrival. It died of heart failure.

M 1976 December 9 –

'Gabriel'

385-JNB 5

Caught in Umfolozi. It was two years old on arrival.

## Johnson City, TX, USA

### McCombs Ranch

F 1994 August 4 –

'Shoha'

202-STA 4

From Brownsville.

## Kagoshima, Japan

### Hirakawa Zoological Park

M 1986 July 11 –

'Chousuke'

514-MIY 1

From Miyazaki.

F 1986 July 11 –

'Shino'

518-MIY 5

From Miyazaki.

## Kaliningrad, Russia

### Kaliningradskii Zoopark

M 1972 July 5 –

'Teodor'

124-HAJ 3

From Hannover (via Moscow Zoo Center).

F 1972 July 5 –

'Felicia'

551-KAL 1

Caught in South Africa when it was two years old.

## Kansas City, MO, USA

### Kansas City Zoo

M 1972 June 3 – 1972 June 30

Caught in Natal. Returned to the dealer, but the final destination is not clear.

F 1972 June 3 – 1983 January 3

'Anne'

318-KCM 2

Caught in Natal when it was one year old. To Jacksonville.

F 1972 June 3 – (?)

Two females arrived on 3rd June 1973 from Natal. The fate of the second female is not known.

M 1972 June 30 – 1978 December 14 †

'Bennie'

317-KCM 1

Caught in Natal when it was one year old.

M 1979 July 3 – 1983 January 5

'Dubelo'

042-JAX 1

From Jacksonville and returned there.

**Kaohsiung City, Taiwan***Zoological Gardens*

*M* 1979 February 3 –  
535-SAW 38  
From San Diego Wild Animal Park.

*F* 1979 February 3 –  
538-SAW 41  
From San Diego Wild Animal Park.

*M* 1988 – 1989  
735-KYU 2  
From Kyushu (via dealer in Kobe). To Shen-  
yang.

**Katowice, Poland***Slaski Ogrod Zoologiczny*

*M* 1971 August 8 –  
'Bos' 200-KAT 1  
Caught in Natal. It was one year old on arriv-  
al.

*F* 1971 August 8 – 1995 February 8 †  
'Ola' 201-KAT 2  
Caught in Natal. It was one year old on arriv-  
al.

*F* 1980 November 4 –  
'Faith' 211-DVU 10  
From Dvur Kralove.

*M* 1981 April 13 – 1983 May 12  
'Sunik' 684-KAT 3  
Born to Dan (111, in Dvur Kralove) and Faith  
(211). To Gdansk.

*M* 1985 March 13 – 1985 March 13 †  
844-KAT 4  
Stillborn to Bos (200) and Faith (211).

*M* 1986 September 3 – 1989 July 14  
'Tam-Tam' 888-KAT 5  
Born to Bos (200) and Faith (211). To Gelsen-  
kirchen.

*M* 1994 January 8 –  
'Zulus' 1023-KAT 6  
Born to Bos (200) and Faith (211).

**Kaunas, Lithuania***Kaunas Zoo*

*M* 1985 June 10 –  
'Rickis' 070-WHI 1  
From Whipsnade.

*F* 1985 June 10 –  
'Furra' 096-WHI 11  
From Whipsnade.

**Kenya***1. Meru National Park*

1964

Six white rhinos (three males, three females) from Natal were introduced into Meru National Park in 1964. The exact date of the transfer was not recorded. The animals became quite tame and had rangers to guard them on a more or less permanent basis. The changes in this population are not exactly known. In 1977, two males and one female were killed by poachers, which left only five females at that time (*Africana*, 6 (7), p. 21, October/November 1977). One male born on 16th June 1973 was transferred to Ngare Sergoi in 1984 (Merz 1991). One non-breeding male, born at a zoo in California (place not stated), was released in about 1984 (Vigne 1984: 19). All the remaining white rhinos in Meru National Park were shot by poachers on 29th October 1988 (Merz 1991).

*2. Nyeri: Solio Ranch*

ca. 1972

An unknown number of white rhinos was imported from South Africa to this private ranch near Nyeri in the early 1970s. In 1994, there were about 50 specimens in the sanctuary. A few rhinos were transferred to Ngare Sergoi in 1988. See Fig. 145.

*3. Ngare Sergoi Sanctuary*

A number of white rhinos has been introduced into this private sanctuary near Isiolo. All should belong to the southern subspecies, *C. s. simum*. Although no exact information is available, Merz (1991) recorded the following specimens.

*M* 1984 May 1 –  
'Makora'  
Born on 16th June 1973 in Meru National Park.

*F* 1988 December 7 –  
'Gororika'  
From Solio Ranch.

*F* 1988 December 8 –  
'Marengo'  
From Solio Ranch.

*F* 1988 December 11 –  
'Sungari'  
From Solio Ranch.

*M* 1989 October 1 –  
'Baraza'  
Born to Marengo.

*M* 1990 March 19 –  
'Lari'  
Born to Sungari.

1991 February 2 – died?  
'Waletai'  
Born to Gororika.

*M* (?) – 1990 May 1 †  
From Solio Ranch. Died in a fight.

*F* dates unknown  
'Jagwai'  
From Solio Ranch. To Maasai Mara Game Reserve.

*M* dates unknown  
'Chuma'  
To Maasai Mara Game Reserve.

#### 4. Lewa Downs Ranch near Isiolo

Five (3/2) white rhinos were imported from South Africa to this private ranch in August 1992.

*M* 1992 August 6 –  
'Utlami'

*M* 1992 August 6 –  
'Muliander'

*M* 1992 August 6 –  
'Thuli'

*F* 1992 August 6 –  
'Upendo'

*F* 1992 August 6 –  
'Tumbela'

#### 5. Lake Nakuru National Park

##### 1990/1993

A pair of white rhinos was introduced in 1990 and 1991, both captured at Solio Ranch, Kenya. The female gave birth in March 1993 (Granier 1995: 11). At the end of 1995, there were a total of eight white rhinos in the park, probably indicating that another five had been translocated from Solio. On 2nd January 1995, a male calf 'Ajabu' was born, making a total of nine white rhinos in the park as of that date (Granier 1995: 12). See Fig. 146.

##### 1994 October

In September and October 1994, ten white rhinos (sex not confirmed) were imported from South Africa. One of the females produced a stillborn calf soon after arrival on 14th October 1994. The animals were slowly released into the rhino sanctuary in the park (*Daily Nation*, 15th October 1994; *The Standard*, 17th October 1994). One died on the morning of 28th February 1995 due to chronic pneumonia (Granier 1995: 12). In April 1995, there were ten males and eight females white rhinos in the park, according to Granier (1995: 11).



Fig. 145. Southern white rhinoceros at the private Solio Ranch in Kenya, taken in 1992.

## 6. Maasai Mara Game Reserve

1994 October

Ten white rhinos were imported from Natal as a gift of the Natal Parks Board, together with another ten for Lake Nakuru National Park. These were meant for 'Ol Choro Ouirua' in Maasai Mara (Granier 1995). No further particulars were given.

## Kiev, Ukraine

### Kievski zoologicheskii Park

M 1972 October 13 – 1974 March 19 †  
'Almaz' 552-KIV 1  
From Gelsenkirchen. It was two years old on arrival. It died of volvulus.

F 1972 October 13 –  
'Trevoga' 553-KIV 2  
From Gelsenkirchen. It was two years old on arrival.

M 1975 April 12 – 1993 February 22 †  
'Jonny' 092-WHI 7  
From Whipsnade. It died of hypoperitoneal hematoma. The skeleton was donated to the Zoological Museum of the Ukrainian Agricultural University.



Fig. 146. Southern white rhinos introduced into Kenya's Lake Nakuru National Park, 1994.

## Kings Island, OH, USA

### Wild Animal Safari, Kings Island

The zoo at Tulsa stated that they had received 1/1 from Kings Island on 18th November 1974. It is not clear which specimens these could have been. The collection closed in about 1994 and all the animals were transferred.

F 1973 – 1975 June 12 464-LTR 2  
From Stockbridge. To Little Rock.

M 1974 – 1975 December 18  
'Archie' 390-JAX 3  
Caught in Natal when it was five years old. To Jacksonville.

M 1974 – 1974 October 26  
'Mondo' 465-GBR 1  
Caught in Natal when it was one year old. To Baker.

M 1974 – 1976 February 24  
'Ronnie' 469-BGH 1  
Caught in Natal when it was three years old. To Birmingham.

F 1974 – 1975 December 18  
'Edith' 391-JAX 4  
Caught in Natal when it was six years old. To Jacksonville.

F 1974 – 1975 December 18  
'Wrinkles' 392-JAX 5  
Caught in Natal when it was four years old. To Jacksonville.

F 1974 – 1974 October 26  
'Hatari' 466-GBR 2  
Caught in Natal when it was one year old. To Baker.

F 1974 – 1974 October 26  
'Wagasa' 467-GBR 3  
Caught in Natal when it was one year old. To Baker.

F 1974 – 1976 February 24  
'Gertrude' 470-BGH 2  
Caught in Natal when it was three years old. To Birmingham.

- F* 1974 – 1976 February 24  
'Hortense' 471-BGH 3  
Caught in Natal when it was three years old.  
To Birmingham.
- M* 1974 April 25 – 1980 May 14  
'Teenager' 410-KIM 1  
Caught in Natal when it was four years old.  
To International Animal Exchange.
- M* 1974 April 25 – 1980 May 14  
'Stumpy' 411-KIM 2  
Caught in Natal when it was four years old.  
To International Animal Exchange.
- M* 1974 April 25 – 1979 April 25  
'Curly' 412-KIM 3  
Caught in Natal when it was three years old.  
To Taipei, Leofoo Village (via International  
Animal Exchange).
- M* 1974 April 25 – 1980 May 21  
'Daryll' 413-KIM 4  
Caught in Natal when it was four years old.  
To Hudson.
- M* 1974 April 25 – 1979 April 25  
'Old Man' 414-KIM 5  
Caught in Natal when it was five years old.  
To Taipei, Leofoo Village (via International  
Animal Exchange).
- M* 1974 April 25 – 1980 May 14  
'Adolph' 415-KIM 6  
Caught in Natal when it was four years old.  
To International Animal Exchange.
- M* 1974 April 25 – 1974 December 13  
'Poindexter' 580-NOL 2  
Caught in Natal. To New Orleans.
- M* 1974 April 25 – 1974 June 5  
'Rufus' 687-NOR 2  
Caught in Natal when it was two years old. To  
Norfolk.
- F* 1974 April 25 – 1994 April 30  
'Charlie' 416-KIM 7  
Caught in Natal when it was three years old.  
To Cumberland.
- F* 1974 April 25 – 1994 April 30  
'Pretty Girl' 417-KIM 8  
Caught in Natal when it was three years old.  
To Cumberland.
- F* 1974 April 25 – 1994 April 30  
'Petite' 418-KIM 9  
Caught in Natal when it was three years old.  
To Cumberland.
- F* 1974 April 25 – 1974 December 13  
'Harriott' 579-NOL 1  
Caught in Natal. To New Orleans.
- F* 1974 April 25 – 1974 June 5  
'Jesse' 686-NOR 1  
Caught in Natal when it was two years old. To  
Norfolk.
- M* 1979 December 11 – 1980 August 27  
'Willie' 589-KIM 10  
Born to Daryll (413) and Petite (418). To  
Schwerin (via Wingst).
- M* 1980 July 10 – 1980 July 10 †  
1058-KIM 12  
Stillborn to Daryll (413) and Pretty Girl (417).
- F* 1980 September 5 – 1981 April 2  
590-KIM 11  
Born to Daryll (413) and Charlie (416). To La  
Plata (via Wingst).
- F* 1983 – 1987 November 22  
565-WPB 8  
From Hudson. To Asheboro.
- M* 1983 October 3 – 1983 November 26  
284-SAW 27  
From San Diego Wild Animal Park. To De-  
land.
- M* 1985 February 11 – 1992 June 12  
'Leroy' 080-SDF 1  
From Louisville. To Baltimore.
- F* 1985 February 11 – 1988 July 15  
'Pachy' 081-SDF 2  
From Louisville. To Columbus.
- F* 1988 November 23 – 1992 June 12  
'Daisy Mae' 380-COL 2  
From Columbia. To Baltimore.



**Kingwood, TX, USA***Kingwood Safari*

This collection closed in 1995 due to flooding.

*M* 1990 April 6 – 1995 †

048-SFO 1

From San Diego Wild Animal Park. Marvin Jones saw a newspaper report that a white rhinoceros from Kingwood had escaped and was shot in 1995.

**Kirby Misperton, UK***Flamingo Land*

*M* 1966/1967 – 1968 July

Imported from South Africa when it was still young. The zoo records show that it was sold to Cleethorpes. There is no record of the animal at Cleethorpes zoo (closed in 1974), so perhaps it was sold to another destination.

**Knoxville, TN, USA***Zoological Gardens*

*M* 1974 August 14 – 1988 May 17

'Marvin' 618-KNO 2

Caught in Natal. It was seven years old on arrival. To Baker. See Fig. 147.

*F* 1974 August 14 –

'Milly' 619-KNO 3

Caught in Natal. It was three years old on arrival.

*F* 1974 August 14 – 1988 May 18

'Tilley' 620-KNO 4

Caught in Natal when it was three years old. To Brownsville.

*F* 1974 August 15 –

'Polly' 452-IAE 32

From International Animal Exchange.

*F* 1974 August 15 –

'Dolly' 453-IAE 33

From International Animal Exchange.

*M* 1978 April 9 – 1979 March 28

'Little Marvin' 621-KNO 5

Born to Marvin (618) and Tilley (620). To Mountain Home.

*M* 1978 September 11 – 1979 April 23

'Howie' 622-KNO 6

Born to Marvin (618) and Polly (452). To International Animal Exchange.

*F* 1979 June 1 – 1979 June 1 †

793-KNO 12

Stillborn to Marvin (618) and Dolly (453).

*M* 1979 December – 1980 July 18 †

'Patrick' 588-KNO 1

Born to Marvin (618) and Polly (452). Shipped to Wingst, but died in transit.

*F* 1980 September 2 – 1982 June 21

'PJ' 623-KNO 7

Born to Marvin (618) and Polly (452). To International Animal Exchange.

*F* 1981 January 19 – 1981 October 6

'Freedom' 626-KNO 8

Born to Marvin (618) and Dolly (453). To Haines City.

*M* 1981 December 31 – 1982 July 14

'Sherman' 676-KNO 9

Born to Marvin (618) and Tilley (620). To Brunkensen.

*F* 1983 March 3 – 1985 May 24

'Daffodil' 772-IAE 44

Born to Marvin (618) and Dolly (453). To Louisville.

*M* 1984 January 3 – 1985 May 23

'Kyle' 790-KNO 10

Born to Marvin (618) and Polly (452). To Cleveland.

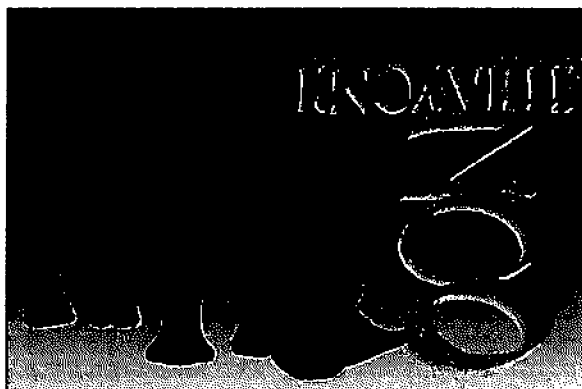


Fig. 147. Postcard of Knoxville Zoo (ca. 1990).

*F* 1984 January 11 – 1985 May 23  
'Pladedo' 791-KNO 11  
Born to Marvin (618) and Tilley (620). To Louisville.

*M* 1985 August 13 – 1986 July 12  
'Duke' 827-KNO 13  
Born to Marvin (618) and Tilley (620). To Gelsenkirchen.

*F* 1986 June 8 – 1987 March 2  
'Shenema' 851-KNO 14  
Born to Marvin (618) and Dolly (453). To International Animal Exchange.

*F* 1986 October 8 – 1988 November 26  
'Beck' 882-KNO 15  
Born to Marvin (618) and Polly (452). Sold to International Animal Exchange, but no record of the final destination.

*M* 1987 February 20 – 1987 February 21 †  
'Roscoe' 920-KNO 16  
Born to Marvin (618) and Tilley (620).

*M* 1988 May 17 –  
'Mondo' 465-GBR 1  
From Baker.

*M* 1988 September 1 –  
'Chuck' 473-JCK 1  
From Jackson, MS.

*F* 1988 November 9 –  
'Caroline' 575-NCL 3  
From Asheboro.

*F* 1988 November 26 – 1991 January 17  
'Amy' 587-PHL 1  
From Philadelphia. To Baker.

*F* 1990 February 2 – 1993 February 4  
'Yvonne' 1038-KNO 18  
Born to Mondo (465) and Dolly (453). To New Orleans.

*F* 1991 January 8 – 1994 September 27  
'Taryn' 1039-KNO 19  
Born to Mondo (465) and Polly (452). To Winston.

*F* 1991 January 17 –  
'Wagasa' 467-GBR 3  
From Baker.

*F* 1991 November 11 – 1991 November 13 †  
'Nan' 1052-KNO 21  
Born to Mondo (465) and Caroline (575).

*M* 1992 November 19 – 1992 November 19 †  
1053-KNO 22  
Stillborn to Chuck (473) and Dolly (453).

*M* 1993 September 15 –  
'Akin' 1040-KNO 20  
Born to Chuck (473) and Polly (452).

### Kobe, Japan

#### Oji Zoo

*M* 1978 September 19 –  
'Saburo' 513-KOB 2  
From Miyazaki.

*F* 1978 September 19 –  
'Nanako' 512-KOB 1  
From Miyazaki.

### Kolmarden, Sweden

#### Kolmardens Djurpark

*M* 1965 May –  
'Kifaru' 011-KOB 1  
Caught in Natal when it was one year old. On deposit in Copenhagen Zoo until May 1966.

*F* 1965 May –  
'Dubohla' 012-KOB 2  
Caught in Natal when it was one year old. On deposit in Copenhagen Zoo until May 1966.

*F* 1992 October 5 –  
'Natala' 1012-KOL 3  
Caught in Natal.

### Krechting, Germany

#### Tierpark

Apparently, this park belonged to an animal dealer called Müller. Recent requests for information have remained unanswered. From a personal visit to Krechting in 1994, it would appear that the park has closed.

*M* 1977 April 1 – 1980 March 26  
 'Jambo' 505-KRC 1  
 Caught in Natal when it was two years old. To Heidelberg.

*F* 1977 April 1 – 1980 March 26  
 'Usimba' 506-KRC 2  
 Caught in Natal when it was two years old. To Heidelberg.

*F* 1977 April 1 – 1981 April 1 †  
 507-KRC 3  
 Caught in Natal when it was two years old.

*M* 1981 August 1 – 1986 October 1  
 'Bill' 492-HOD 1  
 From Hohenhausen. To Riyadh.

*M* 1982 April 28 – (?)  
 'Dick' 486-BBE 7  
 From Hilvarenbeek. The disposition of this animal is not known.

### Krefeld, Germany

#### Krefelder Zoo

*F* 1971 May 7 – 1993 October 27  
 'Sana' 184-KRE 2  
 Caught in Umfolozi (dealer Ruhe). Exhibited in Cologne from 29th July 1987 to 30th June 1988. To St Père.

*M* 1971 October 16 – 1993 October 27  
 'Jambo' 183-KRE 1  
 Caught in Umfolozi (dealer Ruhe). To La Barben.

### Kuala Lumpur, Malaysia

#### Zoo Negara

*F* 1982 September 22 – 1982 December 14 †  
 The origin of this animal is not clear. The zoo stated that it had been imported from Belgium. It died of larvae of *Gyrostigma pavesii* in the stomach (Vellayan *et al.* 1983).

### Kumamoto, Japan

#### Kumamoto Zoo

*M* 1979 April 2 –  
 'Tarou' 468-PHX 3  
 From Phoenix (via International Animal Exchange).

*F* 1979 April 2 –  
 'Sachiko' 704-KOY 9  
 From International Animal Exchange.

*F* 1979 October 12 –  
 'Megumi' 705-KUM 1  
 Born to unknown male (in IAE) and Sachiko (704).

### Kyushu, Anjin-in-Cho, Oita Prefecture, Japan

#### Kyushu African Lion Safari

*M* 1977 September 1 – 1983 January 24 †  
 'Mikasa' 734-KYU 1  
 Caught in Natal when it was five years old.

*M* 1977 September 1 – 1988  
 'Nagato' 735-KYU 2  
 Caught in Natal when it was five years old. To Kaohsiung (via a dealer in Kobe Yoshikawa).

*M* 1977 September 1 – 1984 April 24  
 'Musashi' 736-KYU 3  
 Caught in Natal when it was five years old. To Okinawa.

*M* 1977 September 1 –  
 'Yamato' 737-KYU 4  
 Caught in Natal when it was seven years old.

*M* 1977 September 1 – 1984 January 18  
 'Mutsu' 738-KYU 5  
 Caught in Natal when it was six years old. To Himeji.

*F* 1977 September 1 –  
 'Unryu' 739-KYU 6  
 Caught in Natal when it was five years old.

*F* 1977 September 1 –  
 'Hiryu' 740-KYU 7  
 Caught in Natal when it was five years old.

- F* 1977 September 1 –  
'Mayabusa' 741-KYU 8  
Caught in Natal when it was five years old.
- F* 1977 September 1 –  
'Zero' 742-KYU 9  
Caught in Natal when it was five years old.
- F* 1977 September 1 – 1982 March 1  
'Kaga' 746-KYU 13  
Caught in Natal when it was five years old.  
To Fujiwara.
- M* 1980 January 28 – 1982 March 1  
'Fujio' 745-KYU 12  
Born to Yamato (737) and Kaga (746). To  
Fujiwara.
- F* 1980 May 2 – 1983 February 13 †  
'Ai' 743-KYU 10  
Born to Yamato (737) and Mayabusa (741).
- M* 1982 March 27 –  
'Tarou' 744-KYU 11  
Born to Mutsu (738) and Mayabusa (741).
- M* 1982 November 20 – 1983 January 30  
'Raiden' 681-KOI 5  
From Fujiwara. To Tohoku.
- M* 1985 February 2 –  
'Kotarou' 849-KYU 15  
Born to Yamato (737) and Mayabusa (741).
- M* 1986 January 29 –  
'Kojiyou' 848-KYU 14  
Born to Yamato (737) and Unryu (739).
- M* 1988 August 23 –  
'Tubaru' 936-KYU 16  
Born to Yamato (737) and Mayabusa (741).
- F* 1991 June 29 –  
'Asuka' 975-KYU 17  
Born to Yamato (737) and Mayabusa (741).
- M* 1991 August 17 – 1991 August 17 †  
976-KYU 18  
Stillborn to Yamato (737) and Unryu (739).
- M* 1993 July 2 – 1993 July 2 †  
1015-KYU 18  
Stillborn to Yamato (737) and Unryu (739).
- F* 1993 October 25 –  
'Kanna' 1016-KYU 19  
Born to Tamato (737) and Mayabusa (741).
- La Barben, France**  
*Parc Zoologique*  
*F* 1991 November 28 –  
'Mikumi' 253-BLA 2  
From Blackpool.  
*F* 1991 November 28 –  
'Mopane' 254-BLA 3  
From Blackpool.  
*M* 1993 October 27 –  
'Jambo' 183-KRE 1  
From Krefeld.
- La Plata, Argentina**  
*Zoologico La Plata*  
*M* 1981 July 24 –  
662-LAG 23  
From Laguna Hills (via Gelsenkirchen).  
*F* 1981 July 24 –  
590-KIM 11  
From Kings Island (via Wingst).
- Laguna Hills, CA, USA**  
*Lion Country Safari, Inc.*  
This was one of four safari parks started by  
Lion Country Safari, Inc. at the end of the  
1960s (the others were at Grand Prairie, Stock-  
bridge and West Palm Beach). This collection  
in Laguna Hills closed in 1988.  
*M* 1970 June 16 – 1974  
061-PRY 6  
From Pretoria. Sold to Amatex Exotics, Am-  
arillo, TX, in 1974. In May 1975 it was again  
sold, but the destination is not known.  
*M* 1970 June 16 – 1988  
'Simon' 204-LAG 1  
Caught in Natal. Sent to an unknown destina-  
tion.

- M* 1970 June 16 – 1988  
'Shuster' 205-LAG 2  
Caught in Natal. Sent to an unknown destination.
- F* 1970 June 16 – 1979 April 1  
'Geraldine' 206-LAG 3  
Caught in Natal. To International Animal Exchange.
- F* 1970 June 16 – 1979 April 1  
'Notch Ear' 207-LAG 4  
Caught in Natal. To Taipei, Leofoo Village (via International Animal Exchange).
- M* 1973 May 13 – 1980 †  
269-LAG 10  
Caught in Natal. Traded to Louis Goebel, Thousand Oaks, CA, but died in transit.
- M* 1973 May 13 – 1980 †  
270-LAG 11  
Caught in Natal. Traded to Louis Goebel, Thousand Oaks, CA, but died in transit.
- M* 1973 May 13 – 1974 May 12  
271-LAG 12  
Caught in Natal. To Winston.
- F* 1973 May 13 – 1979 August 1  
264-LAG 5  
Caught in Natal. To Mountain Home.
- F* 1973 May 13 – 1979 March 21  
265-LAG 6  
Caught in Natal. To Taipei, Leofoo Village (via International Animal Exchange).
- F* 1973 May 13 – 1979 March 21  
266-LAG 7  
Caught in Natal. To Taipei, Leofoo Village (via International Animal Exchange).
- F* 1973 May 13 – 1979 June 10 †  
267-LAG 8  
Caught in Natal. Purchased by International Animal Exchange in 1979, but died.
- M* 1973 May 13 – 1981 July 11 †  
272-LAG 3  
According to the 6th edition of the studbook (1995), this animal was sent to 'Roseburg York' (an unexplained location) and died soon after.
- F* 1973 May 13 – 1979 March 21  
273-LAG 14  
Caught in Natal. To Taipei, Leofoo Village (via International Animal Exchange).
- F* 1974 April 24 – 1988  
268-LAG 9  
Born to unknown parents. To Amarillo, and from there soon after to an unknown destination.
- M* 1975 September 8 – 1976 April 16  
276-LAG 15  
Born to unknown parents. According to the studbook, it was sold on 16th April 1976 to 'Johnson Howard', probably a dealer. However, it died on 18th April 1976 while still in transit.
- F* 1977 June 17 – 1980  
655-LAG 16  
Born to unknown parents. Sent to the dealer Michael Lamkin, Amatex Exotics, in Amarillo, TX. Sold from there to an unknown destination.
- F* 1977 October 1 – (?)  
656-LAG 17  
Born to unknown parents. Current status unknown.
- M* 1978 January 18 – 1978 January 25 †  
657-LAG 18  
Born to unknown parents.
- F* 1978 May 3 – 1978 May 30 †  
658-LAG 19  
Born to unknown parents.
- M* 1978 August 14 – 1985  
659-LAG 20  
Born to unknown parents. Sent to the dealer Michael Lamkin, Amatex Exotics, in Amarillo, TX. Sold from there to an unknown destination.
- F* 1978 September 30 – 1978 October 21  
660-LAG 21  
Born to unknown parents. To Hudson.
- M* 1979 April 4 – 1979 April 10 †  
661-LAG 22  
Born to unknown parents.

*M* 1980 September 3 – 1981 July 24  
662-LAG 23

Born to unknown parents. To La Plata.

*M* 1981 May 22 – (?)  
663-LAG 24

Born to unknown parents. Current status unknown.

*M* 1981 June 9 – 1982 March 17  
664-LAG 26

Born to unknown parents. To Gelsenkirchen.

*M* 1983 September 25 – 1985 September 25  
'Cecil' 900-LAG 26

Born to 659 and 655. To Fort Worth.

*F* 1984 – 1985 September 25  
'Katrina' 901-LAG 27

Born to 659 and 656. To Fort Worth.

### Lahore, Pakistan

#### Zoological Gardens

*F* 1990 February 25 –  
'Kavu' 928-SAW 88

From San Diego Wild Animal Park (via Gelsenkirchen).

*M* 1990 February 28 –  
'Mdomo' 860-SAW 77

From San Diego Wild Animal Park.

### Langato, Italy

#### Autosafari – Parco Zoo del Garda

This park is owned by the company of H. Demmer.

*M* 1973 June 1 – 1988 December  
305-DEM 1

Caught in Natal when it was two years old. To Bussolengo.

*F* 1973 June 1 – 1988 December  
306-DEM 2

Caught in Natal when it was two years old. To Bussolengo.

*F* 1975 May 1 – 1977 October 5  
307-DEM 3

Caught in Natal when it was two years old. To Dvur Kralove.

*M* 1977 April 28 – 1980  
368-DEM 5

Caught in Natal when it was one year old. To Bussolengo.

*F* 1977 April 28 – 1980  
367-DEM 4

Caught in Natal when it was one year old. To Bussolengo.

### Leipzig, Germany

#### Zoologischer Garten

*M* 1968 August 23 – 1993 July 21  
'Karl' 007-GEL 1

From Gelsenkirchen. To Bandholm.

*F* 1968 August 23 – 1993 July 21  
'Else' 008-GEL 2

From Gelsenkirchen. To Bandholm.

*M* 1986 October 26 – 1991 October 22  
'Benno' 676-KNO 9

From Halle. To Salzburg.

### Leon, Mexico

#### Parque Zoologico

*M* 1992 March 23 –  
'Moto Kifarua' 968-STA 13

From San Antonio.

*F* 1994 June 24 – 1996 August 3 †  
'Muvule' 156-SAW 15

From San Diego Wild Animal Park.

### Les Mathes, France

#### Parc Zoologique de la Palmyre

*M* 1984 June 21 –  
'Tag' 770-WHI 45

From Whipsnade.

*F* 1984 June 23 –  
'Noelle' 767-BBE 11

From Hilvarenbeek.

*M* 1985 November 29 –  
'Chris'  
From Hilvarenbeek.

796-BBE 12

### Lesna, Czech Republic

#### *Zoological Gardens and Castle*

*M* 1979 July 10 –  
'Joe' 110-DVU 1  
From Dvur Kralove. See Fig. 148.

*F* 1979 July 17 –  
'Zusi' 112-DVU 3  
From Dvur Kralove.

### Liberec, Czech Republic

#### *Severoceska Zoologicka Zahrada*

Since 1987, the rhinos have been housed in a modern pavillion shared with giraffes in separate enclosures. See Fig. 149.

*F* 1976 June 3 – 1983 March 12  
'Edita' 113-DVU 4  
From Dvur Kralove. To Cairo.

*M* 1976 October 19 – 1977 May 16 †  
279-WHI 28  
From Dvur Kralove. Died due to failure of the heart muscle. The body was disposed of.

*F* 1983 October 8 –  
'Tombi' 847-LIB 1  
Caught in Umfolozi (dealer Van den Brink). It was four years old on arrival.



Fig. 148. Lesna's male 'Joe', from a postcard of around 1985.

*M* 1984 March 13 –  
'Niko'  
From Münster.

669-MUR 6

### Lichtenburg, Western Transvaal, South Africa

#### *Breeding Centre of Pretoria Zoo*

*M* 1974 July 24 – 1975 November 4 †  
'Wally' 396-PRY 13  
From Pretoria.

*M* 1976 May 24 – 1980  
294-PRY 9

Caught in Hluhluwe when it was seven years old. To South Africa (private ranch: Shenandoah Game Reserve).

*M* 1976 May 24 – 1982 August 17  
295-PRY 10

Caught in Hluhluwe when it was seven years old. To South Africa (private ranch: Shenandoah Game Reserve).

*F* 1976 May 24 –  
296-PRY 11

Caught in Hluhluwe when it was seven years old.

*F* 1976 May 24 – 1984 November 17 †  
297-PRY 12

Caught in Hluhluwe when it was five years old.

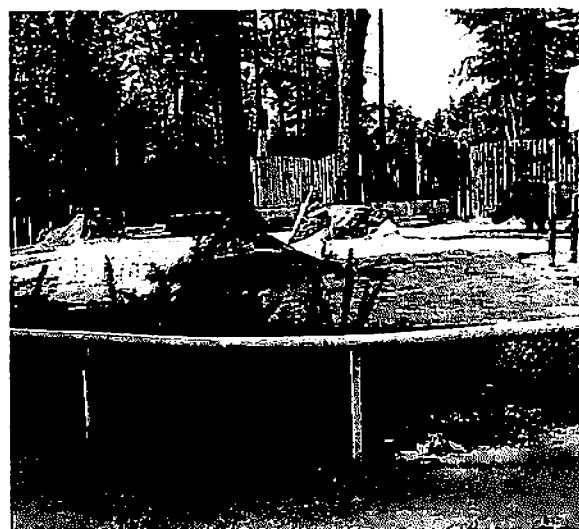


Fig. 149. White rhinoceros enclosure at Liberec in 1994.



- M* 1976 September 9 – 1990 July 17  
405-PRY 15  
Caught in Hluhluwe when it was seven years old. To South Africa (private ranch: Middelkop).
- F* 1976 September 9 –  
406-PRY 16  
Caught in Hluhluwe when it was seven years old.
- F* 1976 September 9 –  
407-PRY 17  
Caught in Hluhluwe when it was seven years old.
- M* 1977 April 10 – 1991 September 19 †  
408-PRY 18  
Born to unknown male and 296.
- F* 1977 December 25 – 1978 July 5 †  
448-PRY 19  
Born to 405 and 406.
- M* 1978 March 19 – 1982 August 17  
449-PRY 20  
Born to 405 and 407. To South Africa (private ranch: Shenandoah Game Reserve).
- F* 1980 February 10 –  
585-PRY 21  
Born to 405 and 407. Exhibited in Potgietersrus from 18th August 1981 to 7th September 1990.
- M* 1980 April 23 – 1981 August 18  
586-PRY 22  
Born to 405 and 296. To Potgietersrus.
- F* 1981 February 5 – 1982 June 10  
672-PRY 23  
Born to 405 and 297. To Potgietersrus.
- M* 1982 January 28 – 1983 October 4  
673-PRY 24  
Born to 405 and 406. To South Africa (private ranch: Boksburg).
- M* 1982 May 12 – 1983 October 4  
780-PRY 25  
Born to 405 and 296. To South Africa (private ranch: Boksburg).
- M* 1983 March 23 – 1985 May 8  
899-PRY 29  
Born to 405 and 407. To Potgietersrus.
- M* 1983 December 5 – 1984 October 19  
794-PRY 26  
Born to 405 and 406. To South Africa (private ranch: Naboomspruit).
- M* 1985 February 5 – 1986 August 26  
880-PRY 27  
Born to 405 and 296. To South Africa (private ranch: Naboomspruit).
- M* 1986 February 23 – 1987 June  
881-PRY 28  
Born to 405 and 407. To South Africa (private ranch: Rietvlei Dam).
- F* 1987 May 30 –  
931-PRY 30  
Born to 405 and 406.
- F* 1988 May 10 –  
932-PRY 31  
Born to 405 and 296.
- F* 1988 July 11 –  
933-PRY 32  
Born to 405 and 407.
- M* 1989 August 8 – 1990 December 24 †  
953-PRY 37  
Born to 405 and 406.
- F* 1990 April 9 – 1994 March 28  
954-PRY 37  
Born to 405 and 296. To Pretoria.
- F* 1990 September 7 – 1996 August 2 †  
934-PRY 33  
From Potgietersrus.
- M* 1991 March 9 – 1994 March 28  
994-PRY 46  
Born to 408 and 407. To Pretoria.
- F* 1992 March 9 –  
996-PRY 48  
Born to 408 and 406.
- F* 1992 March 14 – 1994 December 24  
997-PRY 49  
Born to 408 and 585. To Melaka.
- M* 1992 June 1 – 1994 December 24  
998-PRY 50  
Born to 408 and 296. To Melaka.

*M* 1992 September 21 –

999-PRY 51

Caught in Umfolozi. It was seven years old on arrival.

### Lisbon, Portugal

*Jardim Zoologico e de Aclimação em Portugal*

*M* 1969 December 31 –

'Chumbe'

108-LIS 1

Caught in Umfolozi. It was three years old on arrival.

*F* 1969 December 31 –

'Turra'

109-LIS 2

Caught in Umfolozi. It was three years old on arrival.

*M* 1991 September 18 –

'Umkombi'

1013-LIS 3

Captured in Kruger National Park.

*F* 1991 September 18 –

'Tshu Kudu'

1014-LIS 4

Captured in Kruger National Park.

### Litchfield Park, AZ, USA

*Wildlife World Zoo*

This is a private collection owned by Mickey Ollson.

*M* 1990 April 20 –

'Bam-Bam'

858-WPB 28

From West Palm Beach.

### Little Rock, AR, USA

*Zoological Gardens*

*M* 1975 June 12 – 1990 December 14

'Ben'

463-LTR 1

From Stockbridge. To Fort Worth.

*F* 1975 June 12 – 1991 October 18

'Sue'

464-LTR 2

From Kings Island. To Fort Worth.

### Llano, TX, USA

*Sandstone Mountain Ranch*

*F* 1983 June 4 – 1989 November 14

'Tasha'

051-LAX 2

From Fort Worth. To Glen Rose.

*M* 1983 July 5 – 1989 November 14

'Mac'

050-LAX 1

From Fort Worth. To Glen Rose.

*M* 1986 November – 1988 December 2

'Bubba'

876-LLA 1

Born to Mac (50) and Tasha (51). To Louisville.

### Lodz, Poland

*Miejski Ogród Zoologiczny*

*M* 1986 September 18 –

'Zulu'

003-TI 1

From Berlin Tierpark.

### London, UK

*Zoological Society of London*

*F* 1964 October 14 – 1986 October 17

'Mashobeni'

020-LON 2

From Whipsnade. Again exhibited in Whipsnade from 24th May 1974 to 24th June 1975. To Glasgow.

### Los Angeles, CA, USA

*Los Angeles Zoo*

*M* 1965 August 17 – 1982 December 10

'Sonny'

050-LAX 1

Caught in South Africa when it was six months old. To Fort Worth.

*F* 1965 August 17 – 1982 December 10

'Cher'

051-LAX 2

Caught in South Africa when it was six months old. To Fort Worth.

**Louisville, KY, USA***Zoological Garden*

*M* 1967 November 15 – 1968 June 2 †  
Caught in Natal (dealer Ruhe, who kept it in Hannover from 12th September 1967 to 23rd October 1967 and shipped it to Zeehandelaar). It was three years old on arrival. It died of infestation of batfly larvae.

*M* 1967 November 15 – 1985 February 11  
'Leroy' 080-SDF 1  
Caught in Natal (dealer Ruhe, who kept it in Hannover from 12th September 1967 to 23rd October 1967 and shipped it to Zeehandelaar). It was ten years old on arrival. To Kings Island.

*F* 1967 November 15 – 1985 February 11  
'Luana' 081-SDF 2  
Caught in Natal (dealer Ruhe, who kept it in Hannover from 12th September 1967 to 23rd October 1967 and shipped it to Zeehandelaar). It was ten years old on arrival. To Kings Island.

*F* 1985 May 24 –  
'Lulu' 772-IAE 44  
From Knoxville.

*F* 1985 May 24 –  
'Sindi' 791-KNO 11  
From Knoxville.

*M* 1986 May 28 – 1988 December 2  
'Cecil' 900-LAG 26  
From Fort Worth on loan and returned there.

*M* 1988 December 3 – 1994 December 14  
'Bubba' 876-LLA 1  
From Llano. To Columbus.

*M* 1994 December 14 –  
'Rufus' 754-DOS 5  
From Doswell.

**Madison, WI, USA***Henry Vilas Park Zoo*

*M* 1976 July 2 –  
'Shaka' 697-STO 2  
From International Animal Exchange.

*F* 1976 July 2 –  
'Nadia' 696-STO 1  
From International Animal Exchange.

**Madrid, Spain***1. Zoo de la Casa de Campo*

*M* 1971 October 15 –  
'Roelie' 250-MAD 1  
Imported from South Africa (through van den Brink). It was two years old on arrival.

*F* 1971 October 15 –  
251-MAD 2  
Imported from South Africa when it was two years old. .

*M* 1979 October 1 – 1982 May 16  
670-MAD 3  
Received from Madrid, El Quexigal (zoo records). To Cairo.

*F* 1979 October 1 – 1982 May 16  
671-MAD 4  
Received from Madrid, El Quexigal (zoo records). To Cairo.

*2. Safari Park El Quexigal*

The zoo in Madrid received a pair of white rhinos (studbook Nos. 670 and 671) in October 1979 from safari park El Quexigal, which is apparently located near the city of Madrid. The origin of the animals is not recorded.

**Mallorca, Spain***Auto Safari Reserva Africana*

Owned by L. Ruhe. This park was opened in May 1969.

*M* 1969 May 7 –  
133-MAL 1  
Caught in Natal. It was three years old on arrival.

*F* 1969 May 7 –  
134-MAL 2  
Caught in Natal. It was four years old on arrival.

**Maputo, Mozambique***Unidentified collection*

According to Vincent (1968) and Player (1972: 245), a pair of white rhinos was sent from Umfolozi to an unidentified collection in Maputo, Mozambique, between 1963 and 1968. In 1991, assistance to buy food for the solitary white rhinoceros in Maputo Zoo was given by The Rhino & Elephant Foundation of South Africa (*The Rhino & Elephant Journal*, 5, 1991, p.5).

**Margarita, Argentina***Unidentified collection*

*M* 1975 July 28 – 1979 July 2  
299-PSM 1

Caught in Natal when it was six years old. To Barquisimeto.

*M* 1975 July 28 – 1979 June 21  
300-PSM 2

Caught in Natal when it was two years old. To Barquisimeto.

*F* 1975 July 28 – 1979 June 21  
301-PSM 3

Caught in Natal when it was two years old. To Barquisimeto.

**Medellin, Colombia***Hacienda Napoles*

*F* 1982 September 23 – (?)  
692-GRA 2

From Jackson, NJ (via IAE). Present status unknown.

*M* 1993 December 27 – (?)  
688-SAW 55

From San Diego Wild Animal Park (via IAE). Present status unknown.

**Melaka, Malaysia***Zoological Gardens*

*M* 1994 December 24 –  
998-PRY 50

From Lichtenburg.

*F* 1994 December 24 –  
997-PRY 49

From Lichtenburg.

**Memphis, TN, USA***Overton Park Zoo*

According to Vincent (1968), the Natal Parks Board shipped two pairs of white rhino to Memphis. Only one pair was received (in 1964). There is no record of the destination or fate of the second pair.

*M* 1964 September 15 – 1990 February †  
'Mahlebeni' 040-MEM 1

Caught in Natal. It was one year old on arrival.

*F* 1964 September 15 – 1973 November 10 †  
'Bacxa' 041-MEM 2

Caught in Natal. It was three years old on arrival.

*F* 1976 April 16 –  
'Tombi' 397-MEM 3

From Doswell.

*F* 1979 September 4 – 1979 September 5 †  
924-MEM 9

Born to Mahlebeni (40) and Tombi (397).

*M* 1981 March 3 – 1981 September 5  
'Lestzler' 627-MEM 4

Born to Mahlebeni (40) and Tombi (397). To Erfurt (via Gelsenkirchen).

*M* 1983 April 4 – 1983 June 7 †  
'Rover' 771-MEM 5

Born to Mahlebeni (40) and Tombi (397).

*M* 1984 March 31 – 1984 March 31 †  
795-MEM 6

Aborted calf to Mahlebeni (40) and Tombi (397).

*F* 1985 August 19 – 1986 June 5  
 'Karla' 842-MEM 7  
 Born to Mahlebeni (40) and Tombi (397). To Cleveland.

*M* 1987 October 23 – 1990 January 3  
 914-MEM 8  
 Born to Mahlebeni (40) and Tombi (397). To Christchurch.

*M* 1991 March 2 –  
 'Stormin' Norman' 981-MEM 10  
 Born to Mahlebeni (40) and Tombi (397). Weight at birth 120 lbs. A photograph was published by Kabokoff (1991).

*M* 1993 November 12 –  
 'Pendula' 146-SAW 5  
 From Columbus.

### Mexico City, Mexico

Alfonso L. Herrera Zoological Park

*M* 1985 March 3 –  
 'Charaku' 710-MOR 4  
 From Morelia.

*F* 1985 March 3 – 1990 November 16 †  
 'Osiris' 636-MOR 3  
 From Morelia.

### Miami, FL, USA

Miami Metro Zoo

*F* 1981 June 15 – 1981 †  
 698-IAE 39  
 From International Animal Exchange, according to the second edition of the studbook, but no records in Miami. The current status is unknown, but the 6th edition of the studbook estimates its death in 1981.

*F* 1981 June 15 – 1981 †  
 699-IAE 40  
 From International Animal Exchange, according to the second edition of the studbook, but no records in Miami. The current status is unknown, but the 6th edition of the studbook assumes its death in 1981.

*M* 1983 June – 1984 January 27  
 'Elmer' 763-STA 10  
 From San Antonio. In the studbook, it is recorded that the animal went to 'Northland Wild', but it was actually sent to Plain Dealing.

*F* 1984 March 10 – 1984 May 29 †  
 774-SAW 59  
 From San Diego Wild Animal Park.

### Milwaukee, WI, USA

Milwaukee County Zoological Park

*M* 1962 August 30 – 1988 December 15  
 'Miondo' 031-MKE 1  
 Caught in Natal. It was four years old on arrival (Reynolds 1962c). To Glen Rose.

*F* 1962 August 30 – 1985 May 13 †  
 'Mahlusa' 032-MKE 2  
 Caught in Natal. It was four years old on arrival.

*F* 1962 August 30 – 1983 February 11 †  
 'Masinda' 033-MKE 3  
 Caught in Natal. It was four years old on arrival.

### Mitchellville, IA, USA

Wild World

*M* 1973 September 27 – 1993  
 144-SAW 13  
 From St Louis. To Harwood.

*F* 1973 September 27 – 1983 September 2 †  
 650-SAN 4  
 From St Louis.

*M* 1982 May 17 – 1982 November 10  
 'Jack' 611-WPB 15  
 From West Palm Beach. To Davis.

*F* 1982 May – (?)  
 'Lisa' 613-WPB 17  
 From West Palm Beach. Sent on an unknown date to a private collection in Branson, MO (see information under West Palm Beach).

**Miyazaki, Japan***Miyazaki Safari Park*

This park stopped operation in the early 1990s.

*M* 1975 August 30 – 1978 September 19  
'Saburo' 513-KOB 2  
Caught in Natal. It was five years old on arrival. To Kobe.

*M* 1975 August 30 – 1978 March 23  
'Goro' 519-SHI 1  
Caught in Natal. It was five years old. To Wakayama.

*M* 1975 August 30 – 1985 November 17  
'Taro' 521-MIY 6  
Caught in Natal. It was five years old on arrival. To Izu.

*M* 1975 August 30 – 1978 September 28 †  
'Jiro' 522-MIY 7  
Caught in Natal. It was five years old on arrival.

*F* 1975 August 30 – 1978 September 19  
'Nanako' 512-KOB 1  
Caught in Natal. It was five years old on arrival. To Kobe.

*F* 1975 August 30 – 1978 March 23  
'Yaeko' 520-SHI 2  
Caught in Natal when it was five years old. To Wakayama.

*F* 1975 August 30 – 1983 March 22  
'Ichiko' 523-MIY 8  
Caught in Natal when it was five years old. To Nagasaki.

*F* 1975 August 30 – 1986 October 22  
'Funiko' 524-MIY 9  
Caught in Natal when it was five years old. To Shenyang.

*F* 1975 August 30 – 1985 November 17  
'Miyoko' 525-MIY 10  
Caught in Natal. It was five years old on arrival. To Izu.

*F* 1975 August 30 – 1987 April 22  
'Yoshiko' 526-MIY 11  
Caught in Natal when it was five years old. To Shanghai.

*F* 1975 August 30 – 1987 April 22  
'Itsuko' 527-MIY 12  
Caught in Natal when it was five years old. To Shanghai.

*F* 1975 August 30 – 1987 May 9  
'Mutsuko' 528-MIY 13  
Caught in Natal when it was five years old. To Shenyang.

*M* 1978 April 12 – 1986 July 11  
'Chosuko' 514-MIY 1  
Born to Jiro (522) and Yoshiko (526). To Kagoshima.

*F* 1978 May 11 – 1985 November 17  
'Rumi' 515-MIY 2  
Born to Jiro (522) and Miyoko (525). To Izu.

*M* 1978 June 7 – 1987 April 21  
'Sasuko' 516-MIY 3  
Born to Jiro (522) and Mutsuko (528). To Shanghai.

*F* 1978 July 11 – 1982 March 23 †  
'Nobuko' 517-MIY 4  
Born to Jiro (522) and Itsuko (527).

*F* 1978 July 16 – 1986 July 11  
'Shino' 518-MIY 5  
Born to Jiro (522) and Funiko (524). To Kagoshima.

**Monroe, LA, USA***Louisiana Purchase Gardens and Zoo*

*M* 1972 April 24 –  
386-LOU 1  
Caught in Natal when it was two years old. It was not transferred in 1990 as stated in the studbook.

*F* 1972 April 24 –  
387-LOU 2  
Caught in Natal when it was two years old. It was not transferred and was still in Monroe in January 1994.

**Montevideo, Uruguay***Jardim Zoologico**F* 1985 June 3 –

099-WHI 14

From Whipsnade.

**Morelia, Mexico***Zoologico de Morelia, Parque Juarez**M* 1977 September 15 –

'Roberto'

634-MOR 1

Caught in Natal when it was seven years old.

*F* 1978 October 23 – 1990 February †

'Zenaida'

635-MOR 2

Caught in Natal when it was seven years old.

*F* 1979 October 19 – 1985 March 3

'Osiris'

636-MOR 3

Born to unknown (wild ?) male and Zenaida (635). To Mexico City.

*M* 1982 May 19 – 1985 March 3

'Charaku'

710-MOR 4

Born to Roberto (634) and Zenaida (635). To Mexico City.

*F* 1985 August 17 – 1986 February 17

'Gaby'

830-MOR 5

Born to Roberto (634) and Zenaida (635). To Guadalupe.

*M* 1991 August 8 – 1992

1059-MOR 6

Born to Roberto (634) and Zenaida (635). To Guadalupe.

*F* 1992 November 20 –

043-JAX 2

From International Animal Exchange.

**Morioka City, Japan***Zoological Gardens**F* 1991 June 23 – 1991 July 6 †

'Jil'

592-KOY 2

From Wakayama. Died of anesthetic shock.

*M* 1991 June 26 –

'Kuzu'

677-KOI 1

From Fujiwara.

*F* 1992 April 8 –

'Ki'

502-YAM 5

From Yamaguchi.

**Moscow, Russia***Moskovskii Zoologicheskii Park**M* 1979 October 26 – 1980 December 5 †

'Seryozhka'

549-STA 8

From San Antonio. Died of rachitis.

**Mountain Home, TX, USA***Waters Ranch**M* 1979 March 28 – 1979 August 7 †

'Little Marvin'

621-KNO 5

From Knoxville.

*F* 1979 August 1 –

264-LAG 5

From Laguna Hills.

**Münster, Germany***Allwetterzoo, Westfälischer Zoologischer Garten Münster*

Rümpler (1991a) provided information on the rhinoceros cages and enclosures.

*M* 1974 January 23 – 1995 November 12 †

'Joseph'

340-MUR 1

Caught in Umfolozi (Ruhe) when it was four years old.

*F* 1974 January 23 – 1976 October 21 †

'Maria'

341-MUR 2

Caught in Umfolozi (Ruhe). It was four years old on arrival. Died of enteritis.

*F* 1977 March 29 –

'Natala'

403-MUR 3

From Gelsenkirchen.

*M* 1977 June 13 – 1993 March 4

'Knorpel'

404-MUR 4

Born to 319 (in Gelsenkirchen) and Natala (403). In 1977 it contracted smallpox (Schaller and Pilaski 1979). To Fuengirola.



*M* 1979 September 23 – 1980 January 24 †  
 'Jonas' 509-MUR 5  
 Born to Joseph (340) and Natala (403).

*M* 1981 December 8 – 1984 March 13  
 'Niko' 669-MUR 6  
 Born to Joseph (340) and Natala (403). To  
 Liberec (via Van den Brink, Soest).

*F* 1982 October 5 – 1984 May 21  
 'Kuababa' 002-BE 2  
 From Berlin Zoo and returned there.

*F* 1985 January 5 –  
 'Emily' 812-MUR 7  
 Born to Joseph (340) and Natala (403).

*F* 1986 December 23 –  
 'Vicky' 854-MUR 8  
 Born to Joseph (340) and Natala (403).

*F* 1988 October 10 – 1988 October 10 †  
 Stillborn to Joseph (340) and Natala (403). It  
 weighed 56 kg.

*F* 1990 October 22 –  
 'Emmi' 967-MUR 9  
 Born to Joseph (340) and Emily (812), described  
 by Rümpler (1991b).

*M* 1994 May 24 –  
 'Harry' 974-WHI 57  
 From Whipsnade.

### Munich, Germany

#### Tierpark Hellabrunn

*M* 1974 November 20 – 1991 August 21  
 'Mapumulo' 360-MUN 1  
 Caught in Natal when it was four years old.  
 To Salzburg.

*F* 1974 November 20 – 1991 August 21  
 'Babangiboni' 361-MUN 2  
 Caught in Natal when it was three years old.  
 To Salzburg.

*F* 1974 November 20 – 1991 August 21  
 'Mlangana' 362-MUN 3  
 Caught in Natal when it was two years old. To  
 Salzburg.



Fig. 150. Two white rhinoceroses in Mysore, October 1993.

### Mysore, Karnataka, India

#### Sri Chamarajendra Zoological Gardens

Vincent (1971) stated that the Natal Parks Board shipped a pair of white rhinos to Mysore between August and October 1970. It is likely that they arrived in this southern Indian city at either the end of 1970 or the beginning of 1971. In 1993 I visited the zoo and saw a pair (not a trio) of white rhino. See Figs. 134, 150.

*M* 1971 –  
 'Bheema' 185-MYS 1  
 Caught in Natal. It was two years old on arrival.

*F* 1971 –  
 'Hadambi' 186-MYS 2  
 Caught in Natal. It was two years old on arrival.

*M* 1971 August 6 –  
 122-HAJ 1  
 From Hannover.

### Nagasaki, Japan

#### 1. Nagasaki Bio Park

*M* 1983 March 19 –  
 'Saki' 536-SAW 39  
 From Gunma (via an unidentified collection called Elsa Wonderland).

*F* 1983 March 22 –  
 'Ichiko' 523-MIY 8  
 From Miyazaki.

**2. Nagasaki Safari Park***M* 1983 February 28 – 1991

'Saimon' 548-GSW 3  
 From Gunma. To an unknown destination  
 (Klös and Frese 1993) or died in 1990 (Ochs  
 1995).

*M* 1983 March 3 – 1990 †

'Antonio' 729-GSW 6  
 From Gunma.

*F* 1983 March 5 – 1987 December 5 †

'Lynn' 435-IAE 17  
 From Gunma.

*F* 1986 May 21 – 1991

'Cha' 890-NSP 1  
 Born to Saimon (548) and Lynn (435). To an  
 unknown destination (Klös and Frese 1993) or  
 died in 1990 (Ochs 1995).

**Nasu, Japan***Nasu Safari Park**M* 1982 April 22 –

'Aka' 596-KOY 6  
 From Wakayama.

*M* 1984 October 10 –

'Sunny' 498-YAM 1  
 From Yamuguchi (via the dealer Safeways in  
 Tokyo, Japan).

*M* 1984 October 10 – 1985 August 27

'Gonpa' 733-JOB 1  
 From Iwaki City. To Hokkaido.

**Neuwied, Germany***Zoo Neuwied*

This zoo changed ownership in 1985. The  
 records up to that date are no longer availa-  
 ble.

*M* 1979 December 18 – 1981 March 19 †

'Herman' 169-ARN 5  
 From Gelsenkirchen.

*M* 1982 September 23 – 1984 March 1

'Anton' 278-WHI 27  
 From Gelsenkirchen. To Rome Grunvald.

**New Orleans, LA, USA***Audubon Park Zoological Garden**M* 1974 December 13 – 1991 June 10 †

'Wooly' 023-NYC 1  
 From New York Bronx. Died of pneumonia  
 and tuberculosis.

*M* 1974 December 13 – 1991 September 7 †

'Poindexter' 580-NOL 2  
 From Kings Island. Died of exertional rhab-  
 domyolysis, renal/heart failure.

*F* 1974 December 13 – 1990 December 3 †

'Jessie' 024-NYC 2  
 From New York Bronx.

*F* 1974 December 13 – 1992 July 13 †

'Harriot' 579-NOL 1  
 From Kings Island. The animal was eutha-  
 nized. The horns are kept in the Mammal  
 Section of the zoo, while the skull and limbs  
 were sent to LSU Veterinary School, Depart-  
 ment of Anatomy.

*F* 1993 February 4 –

'Yvonne' 1038-KNO 18  
 From Knoxville.

*M* 1993 April 3 –

'Saba' 1034-JAX 18  
 From Jacksonville.

**New York, NY, USA***Bronx Zoo**M* 1962 September 4 – 1974 December 13

'Wooly' 023-NYC 1  
 Caught in Umfolozi (Bridges 1962, Reynolds  
 1962c). To New Orleans. See Fig. 151.

*F* 1962 September 4 – 1974 December 13

'Jessie' 024-NYC 2  
 Imported from Umfolozi with the preceding  
 male. To New Orleans.

**Norfolk, VA, USA***Virginia Zoological Park*

Research carried out at this zoo shows that  
 rhinos appear to be influenced by infrasound,



Fig. 151. Postcard of white rhinoceros in New York.

which can induce mating behaviour (Falkiner 1991).

*M* 1974 June 5 –  
'Rujus' 687-NOR 2  
From Kings Island.

*F* 1974 June 5 –  
'Jesse' 686-NOR 1  
From Kings Island.

#### Nuremberg, Germany

*Tiergarten der Stadt Nürnberg*

*M* 1971 May 7 – 1988 November 3  
'Karoo' 128-NUE 1  
Caught in Umfolozi. It was three years old on arrival. To South Africa (private ranch: Keely) (via Sandton).

*F* 1971 May 7 – 1988 November 3  
'Duku' 129-NUE 2  
Caught in Umfolozi. It was four years old on arrival. To South Africa (private ranch: Keely) (via Sandton).

#### Ocala, FL, USA

##### Unidentified collection

According to Marvin Jones, there is no animal collection located in Ocala. It could refer to the Catskill Game Farm South, but that park never had any white rhinos. The studbook probably refers to a collection in another town nearby, such as Deland.

*M* 1984 December 13 – (?)  
'Bumper' 912-OCA 1  
In the studbook, recorded as an animal born to unknown parents. However, no other rhinos are recorded in this collection. Current status unknown.

#### Okinawa, Japan

*Okinawa Kodomonoki Park*

*M* 1984 April 24 –  
'Musashi' 736-KYU 3  
From Kyushu.

#### Oklahoma City, OK, USA

*Oklahoma City Zoo*

*M* 1963 August 16 – 1978 June 26  
'Gordon' 036-OKC 1  
Caught in Natal when it was three years old. To Winston.

*F* 1963 August 16 – 1978 June 26  
'Faith' 037-OKC 2  
Caught in Natal when it was two years old. Sent to Winston, but died on the way.

#### Omaha, NE, USA

*Henry Doorly Zoo*

*M* 1966 November 14 – 1989 June 21 †  
'Charlie' 038-OMA 1  
Caught in Natal. It was three years old on arrival.

*F* 1966 November 14 –  
'Henrietta' 039-OMA 2  
Caught in Natal. It was three years old on arrival.

*M* 1989 December 18 –  
'Duma' 861-SAW 78  
From San Diego Wild Animal Park.

<b>Onuma, Hokkaido Prefecture, Japan</b>		<i>F</i> 1981 June 30 – 'Gracie' From Whipsnade.	504-WHI 37
<i>Subaru Park</i>			
<i>M</i> 1987 April 12 – 'Bosrei' From Wakayama.	595-KOY 5	<i>M</i> 1992 February 20 – 'Mafuta' From Blackpool.	252-BLA 1
<i>F</i> 1987 April 12 – 'Lora' From Wakayama.	591-KOY 1	<b>Paris, France</b>	
<i>M</i> 1987 April 20 – 1988 January 10 † 940-HOK 1 Born to Bosrei (595) and Lora (591).		<i>Parc Zoologique, Vincennes</i>	
		<i>F</i> 1981 October 28 – 'Gaby' From Edinburgh.	651-EDB 2
<b>Osnabruck, Germany</b>		<i>M</i> 1981 November 5 – 'Gus' From Glasgow.	091-WHI 6
<i>Zoo Osnabruck</i>			
<i>M</i> 1979 July 26 – 'Floris' From Hilvarenbeek.	316-BBE 6	<i>F</i> 1992 August 8 – 'Gilon' Born to Gus (91) and Gaby (651).	1025-PAR 1
<i>F</i> 1979 July 26 – 'Bianca' From Hilvarenbeek.	222-BBE 2	<b>Penticton, BC, Canada</b>	
		<i>Okanagan Game Farm</i>	
<b>Ostrava, Czech Republic</b>		<i>M</i> 1976 May 12 – 1980 †	759-DOS 10
<i>Zoologicka Zahrada</i>		From Doswell. It was no longer recorded in the 3rd edition of the studbook. The current status is unknown, but the 6th edition (1995) estimates its death in 1980.	
<i>M</i> 1974 October 30 – 'Natal' From Dvur Kralove.	371-DVU 11		
<i>F</i> 1974 October 30 – 'Dinah' From Dvur Kralove.	208-DVU 7	<b>Perth, Western Australia</b>	
		<i>Zoological Gardens</i>	
<b>Paignton, UK</b>		<i>M</i> 1990 May 16 – 'Memphis' From Christchurch.	914-MEM 8
<i>Zoological and Botanical Gardens</i>			
In 1987, a new two-acre enclosure was constructed with aid from the Army's Royal Engineers, led by Lieutenant George Butler.		<i>F</i> 1990 May 16 – 1990 August 4 † 'Mwivi' From Christchurch.	930-SAW 90
<i>M</i> 1981 June 30 – 'Dale' From Whipsnade.	532-WHI 38		

**Philadelphia, PA, USA***Zoological Gardens*

*M* 1974 May 4 – 1988 November 15  
 'Sam' 220-SAW 21  
 From San Diego Wild Animal Park. This male and the following female were donated by G. Kurt Davidyan and The Blanche G. Whitecar Foundation, and exhibited in the second phase of the African plains exhibit (*International Zoo News*, 22 (5), p. 51, August/September 1975). To Toledo.

*F* 1974 May 4 – 1988 November 25  
 'Henrietta' 219-SAW 20  
 From San Diego Wild Animal Park. To Glen Rose.

*F* 1976 October 22 – 1988 November 25  
 'Amy' 587-PHL 1  
 From West Palm Beach. To Knoxville.

**Phoenix, AZ, USA***Phoenix Zoo*

*M* 1963 July 28 –  
 'Kehtla' 034-PHX 1  
 Caught in Umfolozi. It was one year old on arrival.

*F* 1963 July 28 – 1979 November 2  
 'Nkanjan' 035-PHX 2  
 Caught in Umfolozi. It was one year old on arrival. To Fujiwara (via International Animal Exchange, 26th October 1979).

*F* 1975 May 1 –  
 'Tambili' 153-SAW 12  
 From San Diego Wild Animal Park.

*M* 1975 September 5 – 1979 March 15  
 'Mwamba' 468-PHX 3  
 Born to 52 (in San Diego WAP) and Tambili (153). To Kumamoto City (via International Animal Exchange).

*F* 1978 November 27 – 1979 November 28  
 1018-PHX 9  
 Born to Kehtla (34) and Tambili (153). To International Animal Exchange, but final disposition not known.

*F* 1981 August 14 – 1982 June 29  
 'Molly' 700-PHX 4  
 Born to Kehtla (34) and Tambili (153). To International Animal Exchange.

*M* 1983 December 23 – 1985 April 6  
 'Khishimus' 832-PHX 5  
 Born to Kehtla (34) and Tambili (153). To International Animal Exchange.

*M* 1985 December 13 – 1985 December 13 †  
 839-PHX 6  
 Stillborn to Kehtla (34) and Tambili (153).

*M* 1987 July 14 – 1989 March 30  
 'Ollie' 898-PHX 7  
 Born to Kehtla (34) and Tambili (153). To Glen Rose (after spending a few weeks in Fort Worth).

*M* 1990 August 28 – 1992 July 14  
 'Howell' 963-PHX 8  
 Born to Kehtla (34) and Tambili (153). It was named after Howell B. Hood, the first veterinary officer at the zoo. To International Animal Exchange (and from there, still in 1992, to an unidentified zoo in Mexico).

**Pistoia, Italy***Giardino Zoologico 'Citta di Pistoia'*

This zoo opened in March 1970, and was designed by Angelo Lombardi.

*M* 1977 August 10 –  
 886-PIS 1  
 Caught in Natal. It was six years old on arrival.

*F* 1977 August 10 –  
 887-PIS 2  
 Caught in Natal. It was five years old on arrival.

**Pittsburgh, PA, USA***Zoological Gardens*

*M* 1977 July 11 –  
 'Deano' 481-PIT 1  
 From Jackson, NJ.

*F* 1977 July 11 –  
'Kidogo'  
From Jackson, NJ.

482-PIT 2

**Plain Dealing, LA, USA***Wild World*

*M* 1984 January 27 – (?)  
'Elmer'

763-STA 10

From Miami. Current status unknown.

**Plaisance du Touch, France***African Safari*

*M* 1990 June 7 –  
'Tam-Tam'

888-KAT 5

From Gelsenkirchen.

**Potgietersrus, Northern Transvaal, South Africa***Breeding Centre of Pretoria Zoo*

*M* 1981 August 18 – 1985 March 11

586-PRY 22

From Lichtenburg. Sold to the South African dealer Helicapture. In May 1985 it went to an unknown destination.

*F* 1981 August 18 – 1990 September 7

585-PRY 21

From Lichtenburg and returned there.

*F* 1982 June 10 – 1989 May 11 †

672-PRY 23

From Lichtenburg.

*M* 1985 May 8 – 1990 August 30

899-PRY 29

From Lichtenburg. To South Africa (private ranch: Touchstone).

*F* 1988 September 29 – 1990 September 7

934-PRY 33

Born to 899 and 585. To Lichtenburg.

*F* 1988 October 13 – 1989 May 11 †

935-PRY 34

Born to 899 and 672.

**Prague, Czech Republic***Zoologicka Zahrada*

*M* 1971 August 30 –

'Patrys'

160-PRG 1

Caught in Natal when it was two years old.

*F* 1971 August 30 –

'Pongola'

161-PRG 2

Caught in Natal when it was six years old.

*F* 1971 August 30 – 1992 March 30

'Paturi'

162-PRG 3

Caught in Natal when it was four years old. To St Père.

**Prescot, UK***Knowsley Safari Park*

The rhinos are stabled together. In the day-time, they are released into a 100-acre reserve together with 30 elands, 13 bactrian camels and 12 American bison (in 1993).

*M* 1972 November 1 – 1993 February 14 †

'Lumpy'

353-PRC 3

Caught in South Africa.

*M* 1972 November 1 – 1982

'Mule'

354-PRC 4

Caught in South Africa. To Woburn.

*M* 1972 November 1 – 1985 November 7

'Arthur'

355-PRC 5

Caught in South Africa. To Woburn.

*F* 1972 November 1 –

'Maggie'

352-PRC 2

Caught in South Africa.

*F* 1972 November 1 – 1973 March 1

'Alice'

356-PRC 6

Caught in South Africa. To Bewdley.

*F* 1972 November 1 – 1973 March 1 †

357-PRC 7

Caught in South Africa.

*M* 1977 November 13 – 1990 March 23

'George'

712-PRC 8

Born to 355 and 352. It was hand-reared. When it was nine months old, it was still tame enough to be used as a chair by its keeper

(*Sunday Express*, 10th September 1978). It was exhibited at Whipsnade from 5th May 1988 to 16th June 1988. To Aalborg.

*M* 1983 November 23 –  
'Hannu' 828-PRC 9  
Born to Arthur (355) and Maggie (352).

*M* 1985 August 25 –  
'Budweiser-Arun' 829-PRC 10  
Born to Arthur (355) and Maggie (352).

### Pretoria, South Africa

#### National Zoological Gardens

This zoo has breedings stations in Lichtenburg and in Potgietersrus. The animals kept there are recorded under those localities.

*F* 1946 July 29 – 1987 March 21 †  
'Zuluana' 058-PRY 3  
Deserted by its mother near Sangoyana Hills, in the southern buffer zone of Umfolozi Game Reserve on 24th July 1946. The calf was probably born on 23rd July (Bigalke 1947, with illustrations; Bigalke 1961, 1975, figs. 1,2; Bigalke *et al.* 1950; Cillié 1949; Broom 1946).

*M* 1949 January 16 – 1962 April 16 †  
'Folosi' 955-PRY 38  
Caught in Umfolozi when it was one year old.

*F* 1952 August 23 – 1963 May 9 †  
'Dengesi' 956-PRY 39  
Caught in Umfolozi.

*M* 1963 – 1991 February 18  
'Ntjebe' 056-PRY 1  
Caught in Umfolozi when it was two years old. Sold privately.

*F* 1963 May 24 – 1966 December 15 †  
'Ikulu' 957-PRY 40  
Caught in Hluhluwe when it was one year old.

*M* 1963 November 14 – 1963 November 23 †  
'Ma'Nkani' 958-PRY 41  
Caught in Natal.

*M* 1966 April 17 – 1982 May 9 †  
'Inkonzi' 057-PRY 2  
Caught in Umfolozi when it was eight years old.

*F* 1966 April 17 – 1983 October 12  
'Umfazi' 060-PRY 5  
Caught in Natal when it was eight years old. To South Africa (private ranch: Shenandoah Game Reserve).

*F* 1966 April 24 – 1971 June 14 †  
'Nthabazani' 059-PRY 4  
Caught in Umfolozi when it was four years old.

*F* 1966 June 24 – 1967 April 25 †  
959-PRY 42  
Caught in Umfolozi.

*M* 1967 May 1 – 1967 May 24 †  
960-PRY 43  
Caught in Natal.

*M* 1967 June 8 – 1970 April 17  
061-PRY 6  
Born to a wild male and Umfazi (60) who was pregnant on arrival. To Laguna Hills (via Van den Brink, Soest).

*M* 1969 January 14 – 1969 October 10  
127-CLG 1  
Caught in Loskop Reserve, Transvaal. To Cologne.

*M* 1969 October 23 – 1974 July 2  
'Seventy' 076-PRY 7  
Born to Inkonzi (57) and Nthabazani (59). It was born at 8:55 a.m. and named 'Seventy' as it was the 70th birthday of the Pretoria Zoo (Smith 1970). Klös and Frädrieh (1970, fig. 1) and Bigalke (1975, fig. 3) included photographs of this animal. To Antwerp.

*M* 1970 May 25 – 1974 July 2  
'Fransie' 079-PRY 8  
Born to Inkonzi (57) and Umfazi (60). To Antwerp.

*F* 1971 May 13 – 1971 May 14 †  
952-PRY 35  
Born to Inkonzi (57) and Nthabazani (59).

*F* 1972 – 1974 August 12  
291-ANT 4  
Caught in Natal when it was three years old. To Antwerp.

*F* 1972 – 1974 August 12  
292-ANT 5  
Caught in Natal when it was three years old. To Antwerp.



*M* 1973 May 11 – 1974 July 14

'Wally' 396-PRY 13

Born to Inkonzi (57) and Umfazi (60). To Lichtenburg. Another male supposedly born on 7th July 1974 to the same parents was listed in the first editions of the studbook (293-PRY 15), but was deleted from the 5th edition in 1993 (Klös and Frese 1993). This is correct, as it is also absent from the zoo records.

*M* 1976 July 2 – 1978 February 21

'Jamai' 298-PRY 14

Born to Inkonzi (57) and Umfazi (60). To South Africa (private ranch: Nylstroom).

*M* 1991 February 17 – 1992 December 16

'Vurhami' 993-PRY 45

Found abandoned by its mother in Kruger National Park, near Gezantombi Dam at Crocodile Bridge on 20th November 1990 (Zoön, Pretoria, 1991 (2): 4-5). Hand-reared by Danie Pienaar and the staff of the Natal Parks Board in Skukuza (*The Rhino & Elephant Journal*, 5, 1991, p. 11). Sold privately.

*F* 1991 October 15 – 1992 July 30

'Nthandzane' 995-PRY 47

Caught in Kruger National Park, at Ship Mountain in the Pretoriuskop area, when it was ten months old (Zoön, Pretoria, 1991 (4): 6). Sold privately.

*M* 1994 March 28 –

994-PRY 46

From Lichtenburg.

*F* 1994 March 28 –

954-PRY 37

From Lichtenburg.

## Puebla, Mexico

### African Safari

*M* 1975 –

'Richard' 483-PUE 1

Caught in Natal (dealer IAE) when it was two years old.

*F* 1975 –

'Martina' 484-PUE 2

Caught in Natal (dealer IAE) when it was five years old.

*F* 1976 May 6 – 1979 †

'Beky' 646-PUE 3

Born to 52 (in San Diego WAP) and 53. The calf was born while the mother was in transit from San Diego to Mexico, staying at Leon Leopard's collection in Lorena, TX.

*M* 1976 June 22 –

'Cueritos' 288-SAN 31

From San Diego Wild Animal Park (via dealer: Vivo Animales, Lorena, TX).

*F* 1976 June 22 –

'Tombasan' 053-SAN 2

From San Diego Wild Animal Park (via dealer: Vivo Animales, Lorena, TX).

*F* 1978 October 8 – 1982 †

'Renata' 776-PUE 4

Born to Richard (483) and Martina (484).

*M* 1981 September 10 –

'Guicho' 777-PUE 5

Born to Richard (483) and Martina (484).

*F* 1982 August 16 – 1982 August 30 †

778-PUE 6

Born to Richard (483) and Martina (484).

## Puerto Rico

### Jardin Zoologico, Zoorico

*F* 1981 February 9 –

632-CNH 2

From Center Hill.

*M* 1993 November 26 –

'Felipito' 1006-DOM 10

From Santo Domingo.

## Pyongyang, North Korea

### Zoological Park

*M* 1985 August 23 –

872-PYO 1

Caught in Natal. It was three years old on arrival.

*F* 1985 August 23 –

873-PYO 2

Caught in Natal. It was three years old on arrival.

*F* 1985 August 23 -

874-PYO 3

Caught in Natal. It was three years old on arrival.

1985 September - 1985 September †

875-PYO 4

Stillborn to unknown parents.

### Ramat-Gan, Israel

#### Zoological Center, Tel-Aviv

The rhinos are kept in a 200-acre enclosure together with 16 other mammal species. The public can drive through the enclosure. The males fathering the calves are largely unknown as females mate with many bulls and it is often impossible to verify fatherhood accurately. In 1973, the zoo imported a group of four males and four females from Natal. They were shipped by Carr-Hartley. The animals were about two years old on arrival. See Figs. 8, 152, 153.

*F* 1973 August 1 - 1979 June 7 †

240-RAG 1

*F* 1973 August 1 -

'Ziona'

241-RAG 2

*M* 1973 August 12 - 1994 November 6 †

'Hezi'

244-RAG 5

*M* 1973 August 12 -

'Rafi'

245-RAG 6

*M* 1973 August 12 -

'Salman'

246-RAG 7

*M* 1973 August 12 - 1988 October 10

'Eitan'

247-RAG 8

This male prefers the company of hippos. He was the lowest ranking male. He was pushed about so much that he escaped by spending a lot of time wallowing with the hippos in their pool. This led to his hide suffering around the feet and lower leg. In the end, to save his health, he was lured away from the lake, using food, to a small enclosure where he recovered and was eventually sold to South Africa (private ranch: Krugersdorp) (via Sandton).

*F* 1973 August 12 -

'Mazal'

242-RAG 3



Fig. 152. Ramat-Gan, mating of male 837 and female 242.

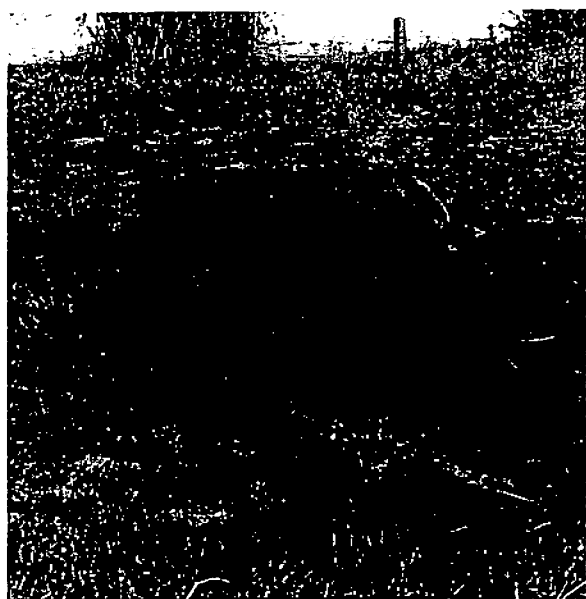


Fig. 153. White rhinoceros calf in Ramat-Gan.

*F* 1973 August 12 –

'Lola'

243-RAG 4

This female never gave birth, but she was a good aunt to the youngsters. Her anterior horn is very straight and so long that it scrapes the ground when she eats. The friction limits its length.

*M* 1978 September 28 –

'Shalom'

487-RAG 9

Born to Hezi (244) and 240.

*M* 1979 July 26 –

'Atari'

497-RAG 10

Born to unknown male and Ziona (241).

*M* 1979 September 12 – 1979 September 12 †

Stillborn to unknown male and Mazal (242).

*F* 1981 February 27 –

'Carnavella'

641-RAG 12

Born to unknown male and Mazal (242).

*M* 1981 April 5 – 1988 October 10

'Lucifer'

640-RAG 11

Born to unknown male and Ziona (241). To South Africa (private ranch: Mica Hope) (via Sandton).

*M* 1982 November 21 – 1989 December 24

'Ari'

766-RAG 13

Born to unknown male and Ziona (241). To Sandton.

*M* 1984 February 7 – 1984 February 7 †

Stillborn to unknown male and Mazal (242).

*M* 1984 August 7 – 1989 December 24

'Carnafari'

799-RAG 14

Born to unknown male and Ziona (241). To South Africa (private ranch: Mica Hope) (via Sandton).

*M* 1985 November 14 – 1988 August 23

837-RAG 15

Born to unknown male and Mazal (242). To South Africa (private ranch: Krugersdorp) (via Sandton). See Fig. 152.

*M* 1985 November 24 – 1988 August 23

838-RAG 16

Born to unknown male and Carnavella (641). To South Africa (private ranch: Krugersdorp) (via Sandton).

*M* 1987 October 17 – 1989 December 26

913-RAG 17

Born to unknown male and Mazal (242). To South Africa (private ranch: Phalaborwa) (via Sandton).

*F* 1987 December 17 – 1987 December 20 †

Born to unknown male and Carnavella (641). The calf did not survive.

*F* 1988 June 13 – 1989 September 20

919-RAG 18

Born to unknown male and Ziona (241). To Singapore.

*M* 1989 May 22 –

945-RAG 19

Born to unknown male and Carnavella (641).

*M* 1989 July 27 – 1992 October 6

946-RAG 20

Born to unknown male and Ziona (241). To Cairo.

*F* 1990 May 7 –

'Maia'

949-RAG 21

Born to unknown male and Mazal (242).

*M* 1991 January 26 –

'Zafriel'

1049-RAG 23

Born to unknown male and Ziona (241).

*M* 1992 February 4 – 1992 February 5 †

1050-RAG 24

Born to unknown male and Carnavella (641). The calf did not survive.

*F* 1993 September 17 –

'Michaela' 1028-RAG 22  
Born to Shalom (487) and Carnavella (641).  
The name was chosen as it was born during  
Michael Jackson's Israel tour.

### Rapperswil, Switzerland

*Circus Knie, Schweizer National-Circus*

*M* 1966 August 5 –

'Bully' 233-RPW 1  
Caught in Natal (Ruhe). It was three years old  
on arrival. It does not perform in the circus.

*F* 1966 August 5 –

'Zeila' 234-RPW 2  
Caught in Natal (Ruhe). It was three years old  
on arrival. It was trained to perform with  
Fredy Knie Jr, running around the compound  
and allowing him to stand on her back (Meyer-  
Holzapfel 1970 with figures). Later she was  
trained to allow a tiger (called 'Sher') to jump  
on her back (Meyer-Holzapfel 1985: 308-315,  
with figs.).

### Redwood City, CA, USA

*Marine World Africa USA*

This zoo was relocated to Vallejo in 1988.

*M* 1972 May – 1988

'Pop' 336-RWK 1  
Caught in Natal when it was six years old. To  
Vallejo.

*F* 1972 May – 1988

'Mom' 337-RWK 2  
Caught in Natal when it was six years old. To  
Vallejo.

### Rio de Janeiro, Brazil

*Jardim Zoologico*

*M* 1974 July 17 – 1991 May 12 †

'Tchunik' 235-RDJ 1  
Caught in Natal when it was two years old.  
Died of abdominal disease.

*F* 1974 July 17 – 1993 June 5 †

'Tania' 236-RDJ 2  
Caught in Natal when it was two years old.

### Riyadh, Saudi Arabia

*Zoological Gardens*

*M* 1986 October –

'Bill' 492-HOD 2  
From Krechting.

*F* 1986 October 10 –

'Angela' 809-JAX 9  
From Gelsenkirchen.

### Rockton, Ontario, Canada

*African Lion Safari*

The rhinos are kept in a 40-acre safari-style  
park, which they share with eland, giraffe,  
barbary sheep, zebra and sika deer.

*M* 1973 May 2 –

'Lucifer' 363-ROK 1  
Caught in Natal when it was four years old.

*M* 1973 May 2 –

'Abner' 364-ROK 2  
Caught in Natal when it was four years old.

*F* 1973 May 2 – 1995 †

'Katie' 365-ROK 3  
Caught in Natal when it was four years old.  
Exhibited in Toronto from 25th July 1989 to  
5th November 1992.

*F* 1973 May 2 –

'May' 366-ROK 4  
Caught in Natal when it was four years old.

*F* 1989 August 25 – 1992 September 1

'Shaboola' 582-ONT 1  
From Toronto and returned there.

### Romaneche, France

*Touroparc*

*F* 1990 June 7 –

'Karibu' 226-WHI 25  
From Whipsnade.

- M* 1990 July 16 –  
'Magadiwe' 021-CHE 1  
From Chester.
- Rome, Italy**
1. Giardino Zoologico
- M* 1984 January 25 –  
701-SAW 57  
From San Diego Wild Animal Park (via Wingst).
- M* 1984 March 2 –  
664-LAG 25  
From Gelsenkirchen.
2. Grunvald Zoo (unidentified)
- M* 1984 March 1 –  
'Anton' 278-WHI 27  
From Neuwied.
3. Safari Park (unidentified)
- P.L. Florio reported (in *International Zoo News*, 19 (2), March 1972, p. 51) that 'Safari International' intended to open a safari park near Rome. They hoped to show six pairs of white rhino.
- Rostov, Russia**
- Rostovskii Na-Donu Zoologicheskii Park
- M* 1973 August 12 –  
'Barman' 554-ROS 1  
From Gelsenkirchen. It was eight years old on arrival.
- F* 1973 August 12 –  
'Pama' 555-ROS 2  
From Gelsenkirchen. It was two years old on arrival.
- Rotterdam, The Netherlands**
- Zoo Blijdorp
- M* 1963 July 5 – 1983 April 8  
'Mkosaan' 013-ROT 1  
Caught in Umfolozi when it was three years old (van Bruggen 1965, with illustrations). To Genk.
- F* 1963 July 5 – 1982 June 7  
'Mabagiwa' 014-ROT 2  
Caught in Umfolozi when it was three years old. To Genk.
- F* 1976 April 20 – 1982 April 15 †  
095-WHI 10  
From Whipsnade.
- Saint-Vrain, France**
- Safaripark 'Monde des animaux sauvages'
- In 1975, this park exhibited an unknown number of white rhinoceros (Dennis Levy, in litt. 24th August 1975).
- Salina, KS, USA**
- Rolling Hills Wildlife Preserve
- M* 1995 April 6 –  
'Uzazi' 980-SAW 91  
From San Diego Wild Animal Park.
- Salt Lake City, UT, USA**
- Hogle Zoo
- M* 1977 May 18 –  
'Shimbayu' 335-SAW 35  
From San Diego Wild Animal Park.
- F* 1977 May 18 – 1980 November 11 †  
'Sharimba' 545-SAW 48  
From San Diego Wild Animal Park. This animal suffocated when its head got stuck in the mud.
- F* 1980 December 15 –  
'Princess' 542-SAW 45  
From San Diego Wild Animal Park.
- Salzburg, Austria**
- Salzburger Tiergarten Hellbrunn
- M* 1991 August 21 –  
'Mapumilo' 360-MUN 1  
From Munich.

*F* 1991 August 21 –  
'Babangiboni' 361-MUN 2  
From Munich.

*F* 1991 August 21 –  
'Mlangana' 362-MUN 3  
From Munich.

*M* 1991 October 22 –  
'Benno' 676-KNO 9  
From Leipzig.

### San Antonio, TX, USA

#### Zoological Gardens

*M* 1970 October 5 –  
'Fred' 180-STA 1  
Caught in Natal when it was five years old.

*F* 1970 October 5 –  
'Gertrude' 181-STA 2  
Caught in Natal when it was five years old.

*F* 1971 February 13 –  
'Phoebe' 182-STA 3  
Caught in Natal when it was two years old.

*M* 1972 August 28 – 1987 January 8  
'Shaka' 202-STA 4  
Born to Fred (180) and Gertrude (181). To  
Brownsville.

*F* 1975 January 20 – 1975 February 22 †  
237-STA 5  
Born to Fred (180) and Phoebe (182). Its death  
was discussed by Schmidt and Hartfiel (1976).

*F* 1976 April 19 – 1978 April 14  
'Nandi' 275-STA 6  
Born to Fred (180) and Gertrude (181). Sold to  
the dealer Ricardo Mata in Guatemala City,  
Guatemala, but no record of the final destina-  
tion.

*M* 1976 November 5 – 1978 April 14  
'Barneby' 398-STA 7  
Born to Fred (180) and Phoebe (182). Sold to  
the dealer Ricardo Mata in Guatemala City,  
Guatemala, but no record of the final destina-  
tion.

*M* 1979 May 22 – 1979 October 26  
549-STA 8

Born to Fred (180) and Phoebe (182). To Mos-  
cow (via Ruhe, Alfeld).

*F* 1980 January 26 – 1980 December 22  
'Nola' 583-STA 9  
Born to Fred (180) and Gertrude (181). To  
Schwerin.

*M* 1982 October 4 – 1983 June  
'Elmer' 763-STA 10  
Born to Fred (180) and Phoebe (182). The stud-  
book records 202 as the father, but this is  
probably inaccurate. To Miami.

*F* 1985 June 6 – 1986 June 27  
'Peggy Lee' 831-STA 11  
Born to Fred (180) and Phoebe (182). To  
Gelsenkirchen.

*M* 1987 June 30 – 1990 January 3  
'Star' 897-STA 12  
Born to Fred (180) and Phoebe (182). To  
Christchurch.

*M* 1989 August 4 – 1992 March 23  
'Moto Kiforua' 968-STA 13  
Born to Fred (180) and Phoebe (182). To Leon  
(via dealer Larry Johnson).

*F* 1993 February 18 – 1994 July 28  
'Safari' 1035-STA 14  
Born to Fred (180) and Phoebe (182). To Jack-  
sonville.

*M* 1994 September 26 –  
'Tex' 1045-STA 15  
Born to Fred (180) and Phoebe (182).

### San Diego, CA, USA

#### 1. San Diego Zoo

The rhinos in San Diego were studied by Dolan  
*et al.* (1990: 106). See Fig. 135.

*M* 1962 September 8 – 1971 May 11  
'Nandula' 052-SAN 1  
Caught in Umfolozi (dealer Walter Schultz)  
when it was two years old. To San Diego Wild  
Animal Park.

- F* 1962 September 8 – 1971 August 24  
'Tombason' 053-SAN 2  
Caught in Umfolozi (dealer Walter Schultz) when it was two years old. To San Diego Wild Animal Park.
- F* 1971 September 18 – 1972 November 1  
'Nthombi' 277-SAN 3  
Caught in Natal. To San Diego Wild Animal Park.
- F* 1971 September 18 – 1972 August 10  
'Donseni' 144-SAW 3  
Caught in Natal. To St Louis.
- M* 1974 October 25 – 1979 November 8  
'Chacka' 284-SAW 27  
From San Diego Wild Animal Park and returned there.
- M* 1974 October 25 – 1980 January 29  
'Rodney' 285-SAW 28  
From San Diego Wild Animal Park and returned there.
- F* 1979 November 8 – 1979 December 4  
'Uhtandi' 151-SAW 10  
From San Diego Wild Animal Park. To Canton.
- M* 1983 May 15 – 1983 November 15  
'Hamsini' 775-SAW 60  
From San Diego Wild Animal Park. Sold to the dealer Earl Tatum, but no record of the final destination.
- M* 1986 June 11 – 1987 April 1  
'Ungus' 783-SAW 61  
From San Diego Wild Animal Park. To Gentry.
- M* 1987 April 21 – 1987 December 1  
'Ndheleleni' 048-SFO 1  
From San Francisco. To San Diego Wild Animal Park.
- F* 1987 April 23 – 1987 November 3  
'Nabuygyani' 049-SFO 2  
From San Francisco. To Winston.
- M* 1987 December 2 – 1988 July 7  
'Rahisi' 420-IAE 2  
From San Diego Wild Animal Park. To Guadalajara.
2. San Diego Wild Animal Park
- The white rhinos in this park were studied by Jones (1991) and Rieches (1993). Their reproduction was studied by Rawlins (1979). See Fig. 154.
- M* 1971 February 17 – 1979 December 4  
'Paghati' 142-SAW 1  
Caught in Natal when it was eight years old. To Canton.
- M* 1971 February 17 – 1974 August 1  
'Mtondo' 143-SAW 2  
Caught in Natal when it was eight years old. To Toronto.
- M* 1971 February 17 – 1972 August 10  
'Donseni' 144-SAW 3  
Caught in Natal. It was eight years old on arrival. The number was deleted in Klös and Frese (1993). To St Louis.
- M* 1971 February 17 – 1976 September 21  
'Sezela' 145-SAW 4  
Caught in Natal when it was two years old. To El Paso. It was returned on 29th September 1983, but died in transit.
- M* 1971 February 17 – 1975 June 17  
'Pendula' 146-SAW 5  
Caught in Natal when it was three years old. To Columbus.
- M* 1971 February 17 – 1971 February 19 †  
'Umfaan'  
Caught in Natal. It was one year old on arrival.
- F* 1971 February 17 – 1989 December 14  
'Macite' 147-SAW 6  
Caught in Natal when it was eight years old. To Glen Rose.
- F* 1971 February 17 – 1975 June 17  
'Gobebe' 148-SAW 7  
Caught in Natal when it was eight years old. To Columbus.
- F* 1971 February 17 – 1973 April 9 †  
'Ishlondo' 149-SAW 8  
Caught in Natal when it was three years old. It died on a Monday after being charged into a waterhole by a male. The date of death is given as 10th April 1973 by Dolan *et al.* (1990: 107).

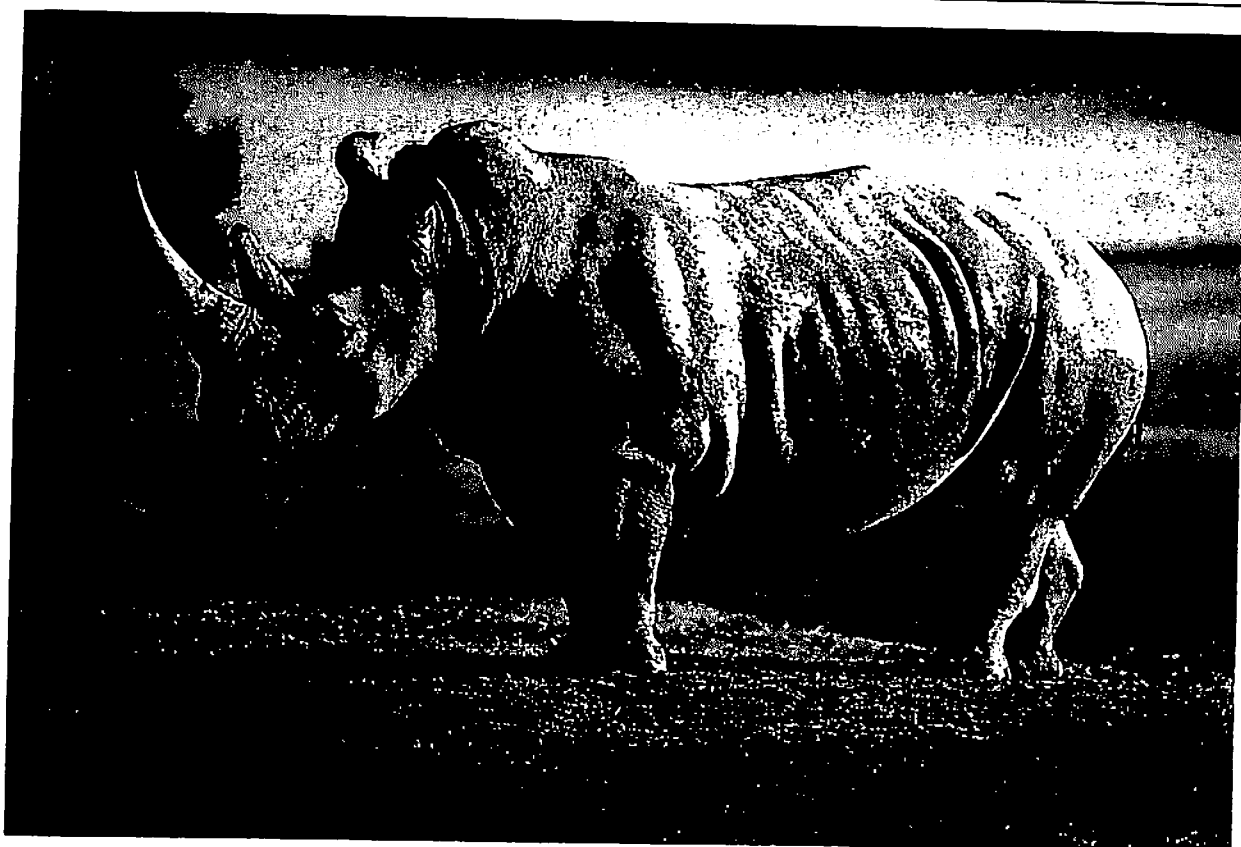


Fig. 154. White rhinoceros at San Diego Wild Animal Park.

F 1971 February 17 – 1996 April 4 †  
 'Sinamra' 150-SAW 9  
 Caught in Natal when it was eight years old.

F 1971 February 17 – 1979 November 8  
 'Uhtandi' 151-SAW 10  
 Caught in Natal when it was eight years old.  
 To San Diego.

F 1971 February 17 – 1974 August 1  
 'Mpondo' 152-SAW 11  
 Caught in Natal when it was eight years old.  
 To Toronto.

F 1971 February 17 – 1975 April 30  
 'Timbile' 153-SAW 12  
 Caught in Natal when it was eight years old.  
 To Phoenix.

F 1971 February 17 –  
 'Mjuba' 154-SAW 13  
 Caught in Natal when it was eight years old.

F 1971 February 17 – 1988 January 14 †  
 'Dabula' 155-SAW 14  
 Caught in Natal when it was eight years old.

F 1971 February 17 – 1994 June 24  
 'Mavula' 156-SAW 15  
 Caught in Natal when it was eight years old.  
 Exhibited in El Paso from 21st September 1976  
 to 9th September 1983. To Leon.

F 1971 February 17 –  
 'Komaas' 157-SAW 16  
 Caught in Natal when it was eight years old.

F 1971 February 17 – 1976 September 26 †  
 'Uhlanya' 158-SAW 17  
 Caught in Natal when it was eight years old.

F 1971 February 17 –  
 'Mfolozi' 159-SAW 18  
 Caught in Natal when it was eight years old.

F 1971 February 17 – 1971 February 21 †  
 'Mtuba'  
 Caught in Natal when it was one year old.

M 1971 May 11 – 1983 October 27  
 'Mandhla' 052-SAN 1  
 From San Diego. To International Animal  
 Exchange.



- F* 1971 August 24 – 1976 June 22  
'Tombasan' 053-SAN 2  
From San Diego. To Puebla.
- M* 1972 October 11 – 1976 June 6  
'Zibulo' 203-SAW 64  
Born to Mandhla (52) and Uhtandi (151). To Tucson.
- F* 1972 November 1 –  
'Nthombi' 277-SAN 3  
From San Diego.
- F* 1972 December 14 – 1973 January 27 †  
212-SAW 65  
Born to Mandhla (52) and Mfolozi (159).
- M* 1972 December 19 – 1974 August 1  
'Shiya' 213-SAW 66  
Born to Mandhla (52) and Mpondo (152). To Toronto.
- F* 1973 February 3 – 1974 August 1  
'Isabamu' 218-SAW 19  
Born to Mandhla (52) and Komaas (157). To Toronto.
- F* 1973 April 15 – 1976 June 8  
'Yebonga' 238-SAW 22  
Born to Mandhla (52) and Sinamra (150). To Tucson.
- F* 1973 May 8 – 1974 May 4  
'Bulalahlega' 219-SAW 20  
Born to Mandhla (52) and Sinamra (150). To Philadelphia.
- F* 1973 May 28 – 1973 May 28 †  
Aborted calf to unknown female.
- M* 1973 June 28 – 1974 May 4  
'Sam' 220-SAW 21  
Born to Mandhla (52) and Mjuba (154). To Philadelphia.
- M* 1974 May 29 – 1975 June 26  
'Jack' 280-SAW 24  
Born to Mandhla (52) and Gobebe (148). To Winston.
- M* 1974 June 29 – 1975 June 26  
281-SAW 24  
Born to Mandhla (52) and Mfolozi (159). To Winston.
- F* 1974 July 13 – 1975 June 26  
'Jill' 282-SAW 25  
Born to Mandhla (52) and Macite (147). To Winston.
- F* 1974 July 20 – 1974 July 22 †  
Born to Mandhla (52) and Mpondo (152).
- F* 1974 September 22 – 1975 June 26  
283-SAW 26  
Born to Mandhla (52) and Mjuba (154). To Winston.
- M* 1974 September 30 – 1983 October 3  
'Chaka' 284-SAW 27  
Born to Mandhla (52) and Sinamra (150). Exhibited in San Diego Zoo from 25th October 1974 to 8th November 1979. To Kings Island.
- M* 1974 October 23 – 1983 October 2  
'Rodney' 285-SAW 28  
Born to Mandhla (52) and unknown female. Exhibited in San Diego Zoo from 25th October 1974 to 29th January 1980. To International Animal Exchange.
- F* 1974 December 4 – 1977 May 28  
289-SAW 32  
Born to Mandhla (52) and unknown female. Sent to the dealer Van den Brink in Soest, the Netherlands, where it died after a few days.
- M* 1975 May 9 – 1976 June 22  
288-SAW 31  
Born to Mandhla (52) and Nthombi (277). To Puebla.
- M* 1976 January 12 – 1976 January 20 †  
Born to Mandhla (52) and Mfolozi (159).
- M* 1976 January 19 – 1977 May 28 †  
286-SAW 29  
Born to Mandhla (52) and Macite (147). Sold to Maracaibo by the dealer Van den Brink (Soest, the Netherlands), but died in transit.
- M* 1976 March 12 – 1977 May 28 †  
287-SAW 30  
Born to Mandhla (52) and Dabula (155). Sold to Maracaibo by the dealer Van den Brink (Soest, the Netherlands), but died in transit.
- F* 1976 March 18 – 1976 March 18 †  
Stillborn to Mandhla (52) and Mavula (156).

- F* 1976 March 25 – 1977 May 28 †  
333-SAW 33  
Born to Mandhla (52) and Sinamra (150). Sold to the dealer Van den Brink in Soest, the Netherlands, but died in transit.
- F* 1976 April 13 – 1976 November 28 †  
334-SAW 34  
Born to Mandhla (52) and Uhlanya (158).
- F* 1976 May 10 – 1977 May 17  
545-SAW 48  
Born to Mandhla (52) and unknown female. To Salt Lake City.
- M* 1976 August 24 – 1977 May 17  
335-SAW 35  
Born to Mandhla (52) and Mjuba (154). To Salt Lake City.
- M* 1976 November 3 – 1978 May 26  
529-SAW 36  
Born to Mandhla (52) and Nthombi (277). Sold to the dealer Earl Tatum, but no record of the final destination.
- M* 1977 September 2 – 1977 September 9  
534-SAW 37  
Born to Mandhla (52) and Mfolozi (159). To San Jose.
- M* 1977 October 15 – 1979 February 3  
535-SAW 38  
Born to Mandhla (52) and Macite (147). To Kaohsiung City.
- M* 1977 October 19 – 1979 March 14  
536-SAW 39  
Born to Mandhla (52) and Sinamra (150). To Gunma (via International Animal Exchange).
- M* 1977 November 5 – 1979 March 14  
537-SAW 40  
Born to Mandhla (52) and Komaas (157). To Gunma (via International Animal Exchange).
- F* 1977 November 24 – 1979 February 3  
538-SAW 41  
Born to Mandhla (52) and Dabula (155). To Kaohsiung City.
- M* 1978 April 25 – 1979 March 14  
539-SAW 42  
Born to Mandhla (52) and Nthombi (277). To Gunma (via International Animal Exchange).
- F* 1978 July 14 – 1978 July 14 †  
Stillborn to Mandhla (52) and Mjuba (154).
- F* 1979 April 4 – 1980 September 6  
540-SAW 43  
Born to Mandhla (52) and Sinamra (150). To Auckland.
- M* 1979 May 5 – 1980 September 6  
541-SAW 44  
Born to Mandhla (52) and Mfolozi (159). To Auckland.
- F* 1979 June 14 – 1980 December 14  
542-SAW 45  
Born to Mandhla (52) and Komaas (157). To Salt Lake City.
- M* 1979 July 1 – 1981 July 1  
543-SAW 46  
Born to Mandhla (52) and Macite (147). To International Animal Exchange.
- F* 1979 July 25 – 1981 July 1  
544-SAW 47  
Born to Mandhla (52) and Dabula (155). To International Animal Exchange.
- M* 1980 April 22 – 1981 September 19  
647-SAW 49  
Born to Mandhla (52) and Nthombi (277). To Taiyuan.
- F* 1980 November 11 – 1981 July 15  
648-SAW 50  
Born to Mandhla (52) and Komaas (157). To Havanna (via Wingst).
- F* 1980 November 12 – 1981 July 15  
649-SAW 51  
Born to Mandhla (52) and Sinamra (150). To Erfurt (via Wingst).
- F* 1981 January 20 – 1981 January 20 †  
666-SAW 52  
Stillborn to Mandhla (52) and Dabula (155).
- F* 1981 March 3 – 1982 April 17  
667-SAW 53  
Born to Mandhla (52) and Mfolozi (159). To Taiyuan.
- M* 1981 May 22 – 1982 April 17  
668-SAW 54  
Born to Mandhla (52) and Macite (147). To Taiyuan.

- M* 1981 November 16 – 1982 July 7  
701-SAW 57  
Born to Mandhla (52) and Nthombi (277). To Rome Zoo (via Wingst).
- M* 1982 July 6 – 1983 September 30  
688-SAW 55  
Born to Mandhla (52) and Dabula (155). To Medellin (via IAE, where it left on 27th December 1983).
- M* 1982 July 12 – 1982 July 12 †  
689-SAW 56  
Stillborn to Mandhla (52) and Komaas (157).
- F* 1982 October 24 – 1983 June 1  
773-SAW 58  
Born to Mandhla (52) and Mfolozi (159). To Brunkensen (via Wingst).
- F* 1982 November 5 – 1986 June 11  
'Ungus' 783-SAW 61  
Born to Mandhla (52) and Sinamra (150). To San Diego.
- F* 1982 December 31 – 1984 January 25 †  
784-SAW 62  
Born to Mandhla (52) and Macite (147). To the dealer Miami Worldwide Primates, FL, USA, and died in transit in January 1984 (Ochs 1995).
- F* 1983 January 4 – 1984 March 2  
774-SAW 59  
Born to Mandhla (52) and Mjuba (154). To Miami Metro.
- M* 1983 May 14 – 1983 May 15  
'Hamsini' 775-SAW 60  
Born to Mandhla (52) and Nthombi (277). To San Diego.
- F* 1983 September 29 – 1986 August 26  
'Daisy Mae' 599-SAW 74  
From El Paso. To Aldergrove.
- M* 1983 October 27 – 1987 December 2  
'Rahisi' 420-IAE 2  
From International Animal Exchange (wild caught in Natal). To San Diego.
- F* 1983 December 22 –  
'Karibu' 788-SAW 63  
Born to Mandhla (52) and Komaas (157).
- F* 1984 June 24 –  
'Dumisha' 819-SAW 67  
Born to Mandhla (52) and Dabula (155).
- F* 1984 July 8 – 1986 April 25  
'Utani' 820-SAW 68  
Born to Mandhla (52) and Mfolozi (159). To Wellington.
- F* 1984 July 29 – 1986 April 25  
'Mapenzi' 821-SAW 69  
Born to Mandhla (52) and Macite (147). To Wellington.
- F* 1984 August 28 –  
'Sinyaa' 822-SAW 70  
Born to Mandhla (52) and Sinamra (150).
- M* 1984 December 6 – 1986 April 25  
'Nakili' 823-SAW 71  
Born to Mandhla (52) and Nthombi (277). To Wellington.
- F* 1985 January 24 – 1987 November 3 †  
'Mwilijogo' 824-SAW 72  
Born to Mandhla (52) and Mjuba (154).
- F* 1985 April 6 – 1986 October 29  
'Mguukubwa' 825-SAW 73  
Born to Mandhla (52) and Mavula (156). To Honolulu.
- M* 1985 July 21 – 1986 October 29  
'Sitini' 841-SAW 75  
Born to Rahisi (420) and Daisy Mae (599). To Honolulu.
- M* 1985 August 20 – 1987 April 23  
'Kikombe' 843-SAW 76  
Born to Rahisi (420) and Komaas (157). To Gelsenkirchen.
- M* 1986 April 7 – 1990 February 18  
'Mdomo' 860-SAW 77  
Born to Rahisi (420) and Macite (147). To Lahore.
- F* 1986 April 23 – 1986 April 24 †  
'Soksi' 877-SAW 82  
Born to Rahisi (420) and Sinamra (150).
- M* 1986 May 11 – 1989 December 14  
'Damu' 861-SAW 78  
Born to Rahisi (420) and Dabula (155). To Omaha.

- M* 1986 July 6 – 1987 April 21  
'Nane' 862-SAW 79  
Born to Rahisi (420) and Nthombi (277). To Gelsenkirchen.
- F* 1986 August 9 – 1988 August 10  
'Msichana' 863-SAW 80  
Born to Rahisi (420) and Mjuba (154). To Augsburg.
- M* 1986 September 23 – 1990 April 8  
'Uzao' 864-SAW 81  
Born to Rahisi (420) and Mfolozi (159). To Sigean.
- M* 1987 January 29 – 1987 December 2  
'Kifaru' 908-SAW 83  
Born to Rahisi (420) and Komaas (157). To Gelsenkirchen.
- M* 1987 May 22 – 1988 June 24 †  
'Manzili' 909-SAW 84  
Born to Rahisi (420) and Mavula (156).
- M* 1987 December 1 – 1990 April 6  
'Ndheleleni' 048-SFO 1  
From San Diego. To Kingwood.
- M* 1988 January 5 – 1988 February 19  
'Dhoruba' 923-SAW 85  
Born to Rahisi (420) and Dabula (155). To Vallejo.
- F* 1988 January 26 – 1988 November 4  
'Nukta' 925-SAW 86  
Born to Rahisi (420) and Nthombi (277). To Wingst.
- M* 1988 February 15 – 1988 November 4  
'Marejo' 926-SAW 87  
Born to Rahisi (420) and Macite (147). To Gelsenkirchen.
- F* 1988 July 5 – 1990 February 18  
'Kavu' 928-SAW 88  
Born to Rahisi (420) and Komaas (157). To Lahore (via Gelsenkirchen).
- F* 1988 August 4 – 1990 April 8  
'Uzima' 929-SAW 89  
Born to Rahisi (420) and Mfolozi (159). To Sigean.
- F* 1988 October 13 – 1989 December 11  
'Mwivi' 930-SAW 90  
Born to Rahisi (420) and Mjuba (154). To Christchurch.
- M* 1990 May 30 –  
'Fodder' 187-FRE 1  
From Fresno.
- M* 1991 November 20 – 1995 April 6  
'Uzazi' 980-SAW 91  
Born to Fodder (187) and Mfolozi (159). To Salina.
- M* 1992 May 15 – 1994 October 11  
'Kusini' 990-SAW 92  
Born to Fodder (187) and Komaas (157). To Berlin Tierpark.
- F* 1992 October 3 – 1994 October 11  
'Mizigo' 991-SAW 93  
Born to Fodder (187) and Mavula (156). To Berlin Tierpark.
- F* 1993 August 14 – 1993 August 14 †  
1044-SAW 95  
Stillborn to Fodder (187) and Mfolozi (159).
- F* 1994 July 11 –  
'Mudder' 188-FRE 2  
From Fresno.
- F* 1994 July 31 –  
'Kisiwa' 1037-SAW 94  
Born to Fodder (187) and Komaas (157).

### San Francisco, CA, USA

#### Zoological Gardens

- M* 1963 November 26 – 1987 April 21  
'Ndheleleni' 048-SFO 1  
Caught in Natal when it was three years old. To San Diego.
- F* 1963 November 26 – 1987 April 23  
'Nabuhgyani' 049-SFO 2  
Caught in Natal when it was two years old. It had a small third horn on its shoulders, illustrated in Hediger (1970, figs. 2-6). To San Diego.

**San Jose, CA, USA***San Jose Baby Zoo**M* 1977 September 9 – 1979 June 7

'Tonka' 534-SAW 37  
 From San Diego Wild Animal Park. To  
 Gänserndorf.

**San Roque, Spain***Auto Safari Andaluz**M* 1972 September 20 – 1980 †

'Toto' 338-RQU 1  
 Caught in Umfolozi.

*F* 1972 September 20 – 1980 †

'Mama' 339-RQU 2  
 Caught in Umfolozi.

*M* 1972 September 20 – 1976 June 2

'Hatari' 319-SGP 2  
 Caught in Natal when it was three years old.  
 To Singapore.

*F* 1973 June 30 – 1976 May 1

'Natala' 403-MUR 3  
 Caught in Natal when it was three years old.  
 The 3rd edition of the studbook (1987) record-  
 ed that it was imported by Madrid, El Quexi-  
 gal on 2nd October 1972. To Gelsenkirchen.

**Sandton, South Africa***Unidentified collection*

It is likely that this name in Klös and Frese  
 (1993) refers to a dealer located near Johan-  
 nesburg.

*M* 1988 May 13 –

843-SAW 76  
 From Gelsenkirchen.

*M* 1989 December 26 –

766-RAG 13  
 From Ramat-Gan.

**Santo Domingo, Dominican Republic***Pargue Zoologico Nacional – Zoodom*

This zoo imported four specimens in 1974. One  
 of these was depicted by Schürer (1982: 61).

*M* 1974 May 11 – 1993 July 27 †

'MV' 477-DOM 1  
 Caught in Umfolozi when it was 30 months  
 old.

*M* 1974 May 11 – 1995 June 11 †

'Gambi' 479-DOM 3  
 Caught in Umfolozi when it was nine months  
 old.

*F* 1974 May 11 –

'HV' 478-DOM 2  
 Caught in Umfolozi when it was 30 months  
 old.

*F* 1974 May 11 –

'HJ' 480-DOM 4  
 Caught in Umfolozi when it was nine months  
 old.

*M* 1979 October 2 –

'Gambito' 550-DOM 5  
 Born to MV (477) and HJ (480).

*M* 1982 June 28 – 1983 September 30 †

883-DOM 6  
 Born to MV (477) and HJ (480).

*M* 1985 February 24 – 1985 July 22

884-DOM 7  
 Born to Gambi (479) and HJ (480). To Circo F.  
 Gasca, Buenos Aires.

*M* 1986 December 24 – 1987 March 16 †

885-DOM 8  
 Born to MV (477) and HJ (480).

*F* 1988 July 29 – 1996 May 31 †

'Laura' 948-DOM 9  
 Born to MV (477) and HJ (480).

*M* 1992 July 30 – 1993 November 26

'Felipito' 1006-DOM 10  
 Born to MV (477) and HJ (480). To Puerto  
 Rico.

*F* 1993 July 4 –

'Isha' 1007-DOM 11  
 Born to MV (477) and Laura (948).

**Sao Leopoldo, Brazil***Parque Zoologico do Rio Grande do Sul**M* 1992 October 23 –

1003-SAL 2

Caught in Natal.

*F* 1992 October 23 –

978-SAL 1

Caught in Natal.

**Sao Paulo, Brazil***Fundacao Parque Zoologico**M* 1972 October 15 –

'Purunga'

383-SAP 1

Caught in Natal when it was four years old.

*F* 1974 December 10 –

'Nanicore'

384-SAP 2

Caught in Natal when it was six years old.

**Schwerin, Germany***Zoo Schwerin*

The rhinos are kept together with African pigmy goats. See Fig. 155.

*M* 1980 December 22 –

'Willi'

589-KIM 10

From Kings Island (via Wingst).



Fig. 155. White rhinoceros in Schwerin, March 1994.

*F* 1980 December 22 –

'Dicke'

583-STA 9

From San Antonio.

**Sendai City, Japan***Yagiyama Zoological Park**M* 1969 August 29 –

'Sabu'

314-SEN 1

Caught in Natal when it was two years old.

*F* 1969 August 29 – 1982 February 7 †

'Saiko'

315-SEN 2

Caught in Natal when it was three years old.

*F* 1982 May 9 –

'Cynthia'

437-IAE 19

From Gunma.

**Sequim, WA, USA***Olympic Game Farm*

This collection had at least one white rhinoceros in September 1992. No details could be obtained.

**Shanghai, China***Zoological Gardens**M* 1987 April 21 –

'Sasuko'

516-MIY 3

From Miyazaki.

*F* 1987 April 21 – 1990 †

'Yoshiko'

526-MIY 11

From Miyazaki. The date of death is not specified in Ochs (1995: 83).

*F* 1987 April 21 –

'Itsuko'

527-MIY 12

From Miyazaki.

**Shenyang, China***Zoological Gardens**F* 1986 October 22 – 1986 †

'Fumiko'

524-MIY 9

From Miyazaki.

F 1987 May 9 –  
'Mutsuko' 528-MIY 13  
From Miyazaki.

M 1989 –  
'Nagato' 735-KYU 2  
From Kaohsiung.

### Shizuoka, Japan

#### Municipal Nihondaira Zoo

M 1989 April 20 –  
'Saitarou' 806-SHI 6  
From Wakayama.

F 1989 April 20 –  
'Saiko' 642-SHI 3  
From Wakayama.

### Sigéan, France

#### Reserve Africaine de Sigéan

M 1974 April 1 –  
'Neron' 086-THO 1  
From Thoiry.

F 1974 April 1 –  
'Cleopatre' 087-THO 2  
From Thoiry.

M 1990 April 9 –  
'Uzao' 864-SAW 81  
From San Diego Wild Animal Park.

F 1990 April 9 –  
'Uzima' 929-SAW 89  
From San Diego Wild Animal Park.

### Singapore, Singapore

#### Zoological Gardens

F 1972 December 14 – 1988 August 11 †  
'Jenny' 263-SGP 1  
Origin uncertain, but this animal was imported by L. Ruhe. It was six years old on arrival. Died of trauma after it fell into a moat.

M 1976 June 2 –  
'Hatari' 319-SGP 2  
From San Roque.

F 1989 September 20 – 1991 December 20 †  
'Whoopi' 919-RAG 18  
From Ramat-Gan. Died of toxicity. The skull is kept at the Education Department of the zoo.

F 1992 August 24 –  
'Shova'  
Caught in Natal when it was eight years old.

F 1992 August 24 –  
'Donsa'  
Caught in Natal when it was seven years old.

### Sioux Falls, SD, USA

#### Great Plains Zoo

M 1994 June 10 –  
'Alfred' 753-DOS 4  
From Cumberland.

### Sofia, Bulgaria

#### Zoological Gardens

M 1986 February 13 –  
'N'gambo' 800-WHI 46  
From Whipsnade.

F 1986 February 13 –  
103-WHI 18  
From Whipsnade.

F 1986 September 23 –  
859-SOF 1  
Born to an unknown male (in Whipsnade) and 103.

### South Africa

#### Private ranches

The Natal Parks Board started to translocate white rhinos from the game parks in Zululand, Natal (Umfolozi, Hluhluwe and border regions) in 1961. This is the source of all southern white rhinos imported from the wild into zoos and safari parks around the world. The Natal Parks Board has kept records of the destinations of the white rhinos, some of which have been published (Vincent 1968-1971).

These records show that white rhinos were also translocated to other national parks and game reserves in South Africa and to some of the other countries in the region, as well as to privately owned properties in South Africa. Buys (1987) and Buys and Anderson (1989) surveyed these private ranches in 1987 to assess the fate of the animals. They presented the following data.

Since 1961, white rhinos have been accommodated in 149 private collections, mainly by the Natal Parks Board, but this figure may include transfers from other sources. The number of rhinos in private hands in 1987 can be summarized as follows:

Received from the Natal Parks Board and others: 1291

Less: 43 lost during or shortly after delivery

Plus: 316 births to the above animals

Less: 32 calves which died within one year

Less: 92 sold or removed alive.

This total would be 1440. However, in 1987 only 931 white rhinos could be accounted for on 103 private ranches, which, surprisingly, would mean a decrease of 509 rhinos. There may be many reasons for this: unsuitable conditions in the region, lack of supplementary feeding, over-stocking of other more adaptable mammal species, reduction of adult males. However, many landowners keep these rhinos as a business proposition, because it is legal in South Africa (within strict regulations) to hunt white rhinos as part of the safari industry. It is likely that more animals are removed by hunting than is advisable for maintaining a healthy population. Buys (1987) provided details of the owners of these private ranches as far as it could be established at that time.

A number of white rhinos first kept at or born in different zoos were transferred to private ranches in South Africa. These animals are still listed as such in the studbook (Kl s and Frese 1993). For the sake of reference, these are briefly mentioned here, although no up-to-date information is available. Some of the collections have not been identified further. The animals are arranged by studbook number.

060-PRY 5 F 1983 October 12. From Pretoria. To Shenandoah Game Reserve. Died on 10th October 1986.

063-JNB 2 M 1984 January 24. From Johannesburg. To Marshalltown. Died in 1988.

128-NUE 1 M 1989 January 30. From Nuremberg (via Sandton). To Keeley, Transvaal.

129-NUE 2 M 1989 January 30. From Nuremberg (via Sandton). To Keeley, Transvaal.

163-AAL 1 M 1990 March 30. From Aalborg (via Van den Brink, Soest, the Netherlands). To Sun City.

247-RAG 8 M 1988 October. From Ramat-Gan (via Sandton). To Krugersdorp.

294-PRY 9 M 1980. From Lichtenburg. To Shenandoah Game Reserve.

295-PRY 10 M 1982 August 17. From Lichtenburg. To Shenandoah Game Reserve. 1983 December 1st, to Sebaka Ranch, Middelburg. Died in 1986.

298-PRY 14 M 1978 February 21. From Pretoria. To Nylstroom. Died on 16th May 1978.

302-HNO 1 M 1974. Imported from Natal to Villiersdorp. Died on 21st August 1974.

303-HNO 2 F 1974. Imported from Natal to Villiersdorp. 1980 May, to Durban.

304-HNO 3 F 1974. Imported from Natal to Villiersdorp. 1980 May, to Durban.

405-PRY 15 M 1990 July 17. From Lichtenburg. To Middelkop.

449-PRY 20 M 1982 August 17. From Lichtenburg. To Shenandoah Game Reserve. 1983 December 1st, to Sebaka Ranch, Middelburg. 1986 August 1st, to Kwalata Game Reserve.

640-RAG 11 M 1990 August 20. From Sandton. To Mica Hope Ranch.

673-PRY 24 M 1983 October 4. From Lichtenburg. To Farm Klipdrift, Allied Technologies Ltd., Boksburg.

780-PRY 25 M 1983 October 4. From Lichtenburg. To Farm Klipdrift, Allied Technologies Ltd., Boksburg.

794-PRY 26 M 1984 October 19. From Lichtenburg. To A. van der Meulen, Naboomspruit.

799-RAG 14 M 1990 February. From Sandton. To Mica Hope Ranch.

831-STA 11 F 1988 May 20. From Gelsenkirchen (via Sandton). To Johannesburg Hurn.

836-HOD 11 F 1988 July. From Gelsenkirchen (via Sandton). To Krugersdorp.

837-RAG 15 M 1988 August 30. From Ramat-Gan (via Sandton). To Krugersdorp.

838-RAG 16 M 1988 August 30. From Ramat-Gan (via Sandton). To Krugersdorp.

862-SAW 79 M 1988 May 30. From Sandton. To Rietvlei Dam.

880-PRY 27 M 1986 August 26. From Lichtenburg. To A. van der Meulen, Naboomspruit.

881-PRY 28 M 1987 June. From Lichtenburg. To Rietvlei Dam.

899-PRY 29 M 1990 August 30. From Potgieter-



ersrus. To Touchstone.

904-SEB 1 F 1984 April 26. Born to unknown parents in Sebaka Ranch, Middelburg. 1986 August 10th, To Steelpoort.

908-SAW 83 M 1988 May 20. From Gelsenkirchen (via Santon). To Johannesburg Hurn.

913-RAG 17 M 1990 March. From Ramat-Gan (via Sandton). To Phalaborwa.

### Sprintmont, Belgium

#### Unidentified collection

F 1980 – 1983 January 29

785-GEN 2

Caught in Natal. Klös and Frese (1993) record that it was imported in December 1979 by Andalusie Parc (this is perhaps in San Roque?). It was two years old on arrival. To Genk.

### St Louis, MO, USA

#### Saint Louis Zoo

M 1972 August 15 – 1973 September 27

'Donsen' 144-SAW 3

From San Diego Wild Animal Park. The number was deleted from the 5th edition of the studbook (1993). Sent to the dealer Leon Leopard, who sold it to Mitchellville.

F 1972 August 15 – 1973 September 27

650-SAN 4

From San Diego. To Mitchellville.

M 1974 August 12 – 1976 September 30

'Ted' 573-NCL 1

Caught in Natal when it was four years old. To Asheboro.

F 1974 August 12 – 1976 September 30

'Alice' 574-NCL 2

Caught in Natal when it was four years old. To Asheboro.

### St Pere, France

#### Zoo St Pere

F 1992 March 30 –

'Paturi' 162-PRG 3

From Prague.

M 1992 May 3 –

'Gustl' 239-HAJ 4

From Hødenhagen.

F 1993 October 27 –

'Sana' 184-KRE 1

From Krefeld.

M 1994 April 22 –

'Charlie' 918-WHI 95

From Whipsnade.

### Stockbridge, GA, USA

#### Lion Country Safari Inc.

This was one of four safari parks opened by Lion Country Safari, Inc. at the end of the 1960s (the others were at Laguna Hills, Grand Prairie and West Palm Beach). The park was closed on an unknown date, possibly even before 1980. The last white rhino was moved in 1976.

M 1970 – 1975 July 22

'Shaka' 697-STO 2

Caught in Natal when it was two years old. To International Animal Exchange.

F 1970 – 1975 July 22

'Nadia' 696-STO 1

Caught in Natal when it was three years old. To International Animal Exchange.

M 1972 April 15 – 1974 April 18

'Samson' 379-COL 1

Caught in Natal when it was four years old. To Columbia.

M 1972 April 15 – 1975 June 12

'Ben' 463-LTR 1

Caught in Natal when it was two years old. To Little Rock.

M 1972 April 15 – 1974 September 2

'Chuck' 473-JCK 1

Caught in Natal when it was three years old. To Jackson, MS.

F 1972 April 15 – 1974 April 18

'Daisy Mae' 380-COL 2

Caught in Natal when it was four years old. To Columbia.

*F* 1982 December 8 – 1984 February 27 †  
 'Di-Di' 762-TAP 7  
 Born to Curly (412) and 434.

*F* 1984 July 20 –  
 'Jan-Jan' 895-TAP 10  
 Born to Old Mas (414) and 265.

*F* 1985 October 8 –  
 'Kuo-Chin' 896-TAP 11  
 Born to Curly (412) and 690.

*M* 1986 July 5 – 1987 November 30 †  
 'Kuo-Kaung' 894-TAP 9  
 Born to Curly (412) and Chuanchin (602).

*M* 1986 August 27 – 1986 August 27 †  
 893-TAP 8  
 Stillborn to Curly (412) and Notch Ear (207).

#### Taiyuan, China

*Zoological Gardens*

*M* 1981 September 19 – 1981 September 29 †  
 647-SAW 49  
 From San Diego Wild Animal Park.

*M* 1982 April 17 –  
 668-SAW 54  
 From San Diego Wild Animal Park.

*F* 1982 April 17 –  
 667-SAW 53  
 From San Diego Wild Animal Park.

#### Tampa Bay, FL, USA

*Busch Gardens*

*M* 1965 October 13 – 1991 August 31  
 'George' 044-TPA 1  
 Caught in Natal (dealer International Animal Exchange) when it was four years old. To the dealer Wildlife Management Services, Grand Prairie, USA. Present whereabouts unknown.

*F* 1965 October 13 – 1989 June 8 †  
 'Maude' 045-TPA 2  
 Caught in Natal (dealer International Animal Exchange). It was three years old on arrival.

#### Temara, Morocco

*Parque Zoologique National*

*M* 1977 April 1 –  
 'Sarim' 717-TEN 2  
 Caught in Natal. It was two years old on arrival.

*F* 1977 April 1 –  
 'Sara' 716-TEN 1  
 Caught in Natal. It was two years old on arrival.

#### Tensin, China

*Zoological Gardens*

*M* 1990 October 4 –  
 'Oki' 850-HIM 6  
 From Himeji.

*F* 1990 October 4 –  
 'Tama' 593-KOY 3  
 From Yokohama.

#### Thoiry, France

*Parc Zoologique*

*M* 1968 April 8 – 1974 April 1  
 'Neron' 086-THO 1  
 Caught in Natal when it was four years old. To Sigéan.

*F* 1968 April 8 – 1974 April 1  
 'Cleopatre' 087-THO 2  
 Caught in Natal when it was four years old. To Sigéan.

*M* 1971 May 8 – 1986 February 3 †  
 'Pompon' 135-THO 3  
 Caught in Natal when it was two years old.

*M* 1971 May 8 –  
 'Samson' 136-THO 4  
 Caught in Natal when it was two years old.

*M* 1971 May 8 –  
 'César' 137-THO 5  
 Caught in Natal when it was two years old.

*F* 1971 May 8 –  
 'Dalila' 138-THO 6  
 Caught in Natal when it was two years old.

**Tobu, Saitama Prefecture, Japan***Tobu Zoo*

M 1980 June 24 –  
 'Gantetu' 764-TOB 1  
 Caught in Natal. It was two years old on arrival.

F 1980 June 24 –  
 'Yoshiko' 765-TOB 2  
 Caught in Natal. It was two years old on arrival.

**Tohoku, Japan***Safari Park*

M 1980 June 6 – 1981 December 6 †  
 'Taro' 732-TOH 2  
 Caught in Natal when it was two years old.

F 1980 June 6 –  
 'Kiku' 731-TOH 1  
 Caught in Natal when it was two years old.

M 1983 January 30 –  
 'Raiden' 681-KOI 5  
 From Kyushu.

**Tokyo, Japan***Ueno Zoo*

M 1966 August 5 –  
 'Tsunokichi' 068-TYO 1  
 Caught in Natal when it was one year old.

F 1966 August 5 –  
 'Ganko' 069-TYO 2  
 Caught in Natal when it was one year old.

**Toledo, OH, USA***Zoological Gardens*

In 1984, the then available white rhino pair was temporarily moved to Yulee while a new African savannah exhibit was being constructed. The female returned in December 1988 and occupied the new quarters.

M 1970 September 22 – 1984 June 21  
 'Phil' 177-TOL 1  
 Caught in Umfolozi when it was 18 months old. This male and the following female were named after the then zoo director and his wife, Phil and Bernadine Skeldon. To Yulee.

F 1970 September 22 – 1991 August 13 †  
 'Bernadine' 178-TOL 2  
 Caught in Umfolozi when it was 18 months old. It was exhibited in Yulee from 21st June 1984 to 21st December 1988. Died after a fall which caused fractured vertebrae and laceration of the spinal cord. It was kept alive for seven days.

F 1988 November 9 –  
 'Lulu' 381-COL 3  
 From Columbia.

M 1988 November 15 –  
 'Sam' 220-SAW 21  
 From Philadelphia.

**Toluca, Mexico***Zacango Zoo*

M 1979 November 18 –  
 'Ali' 422-IAE 4  
 From International Animal Exchange.

F 1979 November 18 – 1979 November 28 †  
 430-IAE 12  
 From International Animal Exchange.

F 1980 July 5 –  
 'Sy' 432-IAE 14  
 From International Animal Exchange.

**Torino, Italy***Giardino Zoologico della Citta di Torino*

M 1972 October 2 – 1987 March 1  
 'Snoopy' 394-TOR 1  
 Caught in Natal when it was three years old. The arrival of this and the following specimen was noted in *International Zoo News*, 29 (7/8), p. 263, December 1972, noting that these were the first white rhinos to be held in an Italian zoo. To Zagreb.

*F* 1972 October 2 – 1987 March 1  
 'Pamela' 395-TOR 2  
 Caught in Natal when it was three years old.  
 To Zagreb.

### **Toronto, Ontario, Canada**

#### *Metro Toronto Zoo*

*F* 1974 August 1 – 1985 July 29 †  
 'Cow' 152-SAW 11  
 From San Diego Wild Animal Park.

*M* 1974 August 8 –  
 'Mtondo' 143-SAW 2  
 From San Diego Wild Animal Park.

*M* 1974 August 8 – 1988 September 22  
 'Bender' 213-SAW 66  
 From San Diego Wild Animal Park. To Calgary.

*F* 1974 August 8 –  
 'Pistol' 218-SAW 19  
 From San Diego Wild Animal Park.

*F* 1979 October 13 –  
 'Shaboola' 582-ONT 1  
 Born to unknown male (possibly 143) and Pistol (218). Weight at birth was 90 lbs. Exhibited in Rockton, Canada from 25th August 1989 to September 1992.

*M* 1982 November 26 – 1987 April 22  
 'Yekisamga' 748-ONT 2  
 Born to unknown male (possibly 143) and Pistol (218). To Granby.

*M* 1985 February 27 – 1985 August 28  
 'Abeeku' 826-ONT 3  
 Born to Mtondo (143) and Pistol (218). To Gelsenkirchen.

*F* 1989 July 25 – 1992 November 5  
 'Katie' 365-ROK 3  
 From Rockton and returned there.

*M* 1990 January 13 –  
 'Atu' 950-ONT 4  
 Born to Mtondo (143) and Pistol (218).

### **Toyohashi, Japan**

#### *Toyohashi Zoo and Botanical Park*

*M* 1992 February 22 –  
 'Tom' 1000-TYH 1  
 Caught in Umfolozi when it was 2.5 years old.

*F* 1992 February 22 –  
 'Tandi' 1001-TYH 2  
 Caught in Umfolozi when it was three years old.

*F* 1992 February 22 –  
 'Tenbi' 1002-TYH 3  
 Caught in Umfolozi when it was two years old.

### **Tripoli, Libya**

#### *Tripoli Zoo*

*M* 1985 June 4 –  
 'Charles' 581-HOD 7  
 From Hodenhagen. The zoo stated that this animal was bought from Ruhe in Gelsenkirchen. This number had been deleted from the studbook as it had seemed to be lost from the records.

*F* 1985 June 4 –  
 'Heidi' 779-HOD 9  
 From Hodenhagen, with the preceding male.

### **Tucson, AZ, USA**

#### *Gene Reid Zoological Park*

*M* 1976 June 8 –  
 'Zibulo' 203-SAW 64  
 From San Diego Wild Animal Park.

*F* 1976 June 8 –  
 'Yebunga' 238-SAW 22  
 From San Diego Wild Animal Park.

### **Tulsa, OK, USA**

#### *Tulsa Zoo*

*M* 1974 November 18 – 1975 February 17 †  
 'Wally'  
 From Kings Island for \$5625.

*F* 1974 November 18 – 1975 February 24 †  
'Claudia'  
From Kings Island for \$ 5625.

*M* 1982 November 3 –  
'Buzbie' 718-GRA 6  
From International Animal Exchange.

*F* 1982 November 3 –  
'Bonnie' 691-IAE 38  
From Grand Prairie (via International Animal Exchange). In April 1987 it was involved in many fights with other rhinos, and knocked off its anterior horn.

*F* 1982 November 3 – 1995 November 15  
'Jeanie' 693-GRA 3  
From International Animal Exchange. To Jakarta. *in Tailandia in 7007*

### Tunis, Tunisia

#### Parc Zoologique

*M* 1974 September 13 – 1990 December †  
'Samson' 459-TUN 1  
Caught in Natal when it was five years old.

*M* 1974 September 13 –  
'Antar' 460-TUN 2  
Caught in Natal when it was one year old.

*F* 1974 September 13 –  
'Dalila' 461-TUN 3  
Caught in Natal when it was two years old.

*F* 1974 September 13 –  
'Abla' 462-TUN 4  
Caught in Natal when it was three years old.

*M* 1980 January 20 –  
'Kmaies' 711-TUN 5  
Born to unknown parents.

### United States of America

#### 1. Carson and Barnes Circus

*M* 1980 December 31 – 1994  
'Boom Boom'  
This animal was said to have come from Winston, but there is no record available in that collection. To Jackson, NJ.

*M* 1994 –  
'Halloween'  
From Jackson, NJ, where it was born in about 1993.

#### 2. Ringling Bros. Circus

*M* 1988 January – 1988 December  
'Henry' 903-WPB 29  
From West Palm Beach (through a variety of dealers). Shown in the blue unit of the circus. To Wellford.

### Usti Nad Labem, Czech Republic

#### Zoologická Zahrada

*F* 1980 November 9 –  
'Sasa' 114-DVU 5  
From Dvur Kralove.

*F* 1980 November 19 –  
'Zamba' 209-DVU 8  
From Dvur Kralove.

*M* 1980 December 4 –  
'Dan' 111-DVU 2  
From Dvur Kralove.

*F* 1981 August 4 – 1988 September 8  
'Lotzi' 179-TI 3  
From Berlin Tierpark and returned there.

*M* 1986 November 18 – 1993 April 29  
'Sagan' 865-UNL 1  
Born to Dan (111) and Sasa (114). To Villaes-cusa.

*M* 1991 January 13 – 1993 April 16  
'Doran' 970-UNL 2  
Born to Dan (111) and Sasa (114). To Dvur Kralove.

*M* 1993 December 10 –  
'Dino' 1029-UNL 3  
Born to Dan (111) and unknown female.

### Valencia, Spain

#### Jardin Zoologico

*M* 1984 March 3 –  
Caught in Natal (dealer Mary Clipperfield Ltd. of Longleat). It was four years old on arrival.

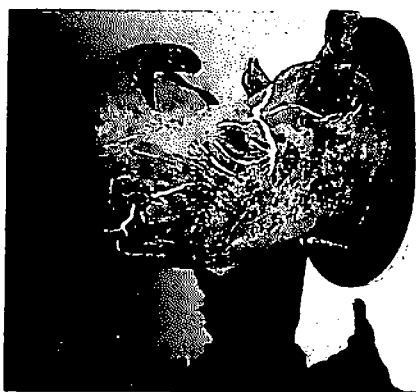


Fig. 157. Veszprem Zoo has kept the head of the white rhinoceros which lived from 1979-1982.

### Vallejo, CA, USA

#### *Marine World Africa*

This zoo was relocated from Redwood City.

M 1988 -  
'Pop' 336-RWC 1  
From Redwood City.

F 1988 -  
'Mom' 337-RWC 2  
From Redwood City.

M 1988 March 1 - 1989  
'Dhoruba' 923-SAW 85  
From San Diego Wild Animal Park. Sent to the dealer Earl Tatum, but no record of the final destination.

### Veszprem, Hungary

#### *Kittenberger Zoo*

F 1979 July 26 - 1982 January 24 †  
'Fatty' 530-DVU 20  
From Dvur Kralove. Died of intestinal trouble. The hide from the head was mounted and kept at the zoo. See Fig. 157.

### Villaescusa, Spain

#### *Parque de la Naturaleza de Cabarceno*

M 1993 March 24 -  
'Simba'  
From an unknown zoo in Germany.

M 1993 April 29 -  
'Sagan' 865-UNL 1  
From Usti.

F 1993 September 20 -  
'Nami'  
From an unknown collection in England.

F 1993 September 20 - 1994 March †  
'Chatka'  
From an unknown collection in England.

### Waco, TX, USA

#### *Cameron Park Zoo*

This new 50-acre zoo, with a large natural habitat enclosure, was set up in July 1993.

F 1993 June 8 -  
'Wrinkles' 392-JAX 5  
From Jacksonville.

M 1993 June 23 -  
'Ollie' 898-PHX 7  
From Glen Rose.

### Wakayama Prefecture, Japan

#### *Adventure World*

In 1978, a group of four males and four females was imported from Windhoek, Namibia, by Yoshikawa Co., Kobe, Japan.

M 1978 February 19 - 1987 April 12  
'Bosrei' 595-KOY 5  
Caught in Natal when it was two years old. To Onuma (via dealer Aritake of Tokyo).

M 1978 February 19 - 1982 April 22  
'Summy' 596-KOY 6  
Caught in Natal when it was two years old. To Nasu.

M 1978 February 19 - 1995 February 8 †  
'Jenma' 597-KOY 7  
Caught in Natal when it was two years old.

M 1978 February 19 -  
'Mack' 598-KOY 8  
Caught in Natal when it was two years old.

- F* 1978 February 19 – 1987 April 12  
'Lora' 591-KOY 1  
Caught in Natal when it was two years old. To Onuma (via dealer Aritake of Tokyo).
- F* 1978 February 19 – 1991 June 23  
'Jil' 592-KOY 2  
Caught in Natal when it was two years old. To Morioko City.
- F* 1978 February 19 – 1984 March 3  
'Kerry' 593-KOY 3  
Caught in Natal when it was two years old. To Himeji.
- F* 1978 February 19 –  
'Fala' 594-KOY 4  
Caught in Natal when it was two years old.
- M* 1978 March 23 – 1981 September 16  
'Goro' 519-SHI 1  
From Miyazaki Safari. To Bangkok Zoo as a special gift to the Thai Zoological Society.
- F* 1978 March 23 – 1981 September 16  
'Yaeko' 520-SHI 2  
From Miyazaki Safari. To Bangkok.
- F* 1981 January 5 – 1989 April 20  
'Saiko' 642-SHI 3  
Born to Bosrei (595) and Lora (591). To Shizuoka.
- F* 1982 November 12 – 1989 January 24 †  
'Maiko' 768-SHI 4  
Born to Bosrei (595) and Lora (591). Gestation period 493 days. Died of anaemia. The hide and skeleton were preserved.
- M* 1983 January 8 – 1983 January 8 †  
'Du-Du' 769-SHI 5  
Born to Bosrei (595) and Fala (594). Gestation period 509 days. Birth weight 84 kg, height 70 cm. Died accidentally when its mother sat on it.
- M* 1984 October 14 – 1989 April 20  
'Saitaro' 806-SHI 6  
Born to Jenma (597) and Fala (594). Gestation 495 days. Birth weight 65 kg. To Shizuoka.
- F* 1984 November 11 – 1985 September 12 †  
'Eye' 807-SHI 7  
Born to Bosrei (595) and Lora (591). Gestation period 491 days. Birth weight 43.5 kg. Died of septicemia.
- M* 1986 June 15 –  
'Ken' 889-SHI 8  
Born to Jenma (597) and Fala (594). Gestation period 491 days.
- F* 1988 June 20 –  
'Shiina' 941-SHI 9  
Born to Jenma (597) and Fala (594). Gestation period 491 days.
- F* 1990 April 24 –  
'Thina' 971-SHI 10  
Born to Jenma (597) and Fala (594). Gestation period 499 days.
- F* 1991 December 28 –  
'Jennyfer' 1017-SHI 11  
Born to Jenma (597) and Fala (594). Gestation period 497 days.
- M* 1994 April 25 – 1995 February 4 †  
'Murphy' 1057-SHI 12  
Born to Jenma (597) and Fala (594).
- Warminster, UK**
- Longleat Park*
- M* 1970 November 9 –  
'Cassius' 116-LNG 1  
Caught in Natal when it was two years old.
- M* 1970 November 9 –  
'Panzer' 117-LNG 2  
Caught in Natal when it was two years old. Exhibited at Bewdley from 11th November 1987 to 1st October 1988.
- M* 1970 November 9 – 1977  
'Sherman' 118-LNG 3  
Caught in Natal when it was two years old. To Woburn.
- F* 1970 November 9 –  
'Bertha' 119-LNG 4  
Caught in Natal when it was two years old.
- F* 1970 November 9 –  
'Helga' 120-LNG 5  
Caught in Natal when it was two years old.

*F* 1970 November 9 – 1980 February 28  
 'Tessie' 121-LNG 6  
 Caught in Natal when it was two years old. To  
 Dubbo (via Van den Brink, Soest, the Nether-  
 lands).

*M* 1979 April 15 –  
 'Rommel' 577-LNG 7  
 Born to Cassius (116) and Helga (120).

*M* 1979 July 28 – 1982 October 10  
 'Churchill' 578-LNG 8  
 Born to Cassius (116) and Helga (120). To  
 Budapest.

*F* 1981 August 25 – 1982 October 10  
 'Sophie' 652-LNG 9  
 Born to Panzer (117) and Helga (120). To  
 Givskud.

*F* 1981 September 28 – 1982 October 10  
 'Eva' 653-LNG 10  
 Born to Panzer (117) and Bertha (119). To  
 Givskud.

*M* 1993 November –  
 'Winston' 255-WIS 1  
 From Windsor.

*M* 1993 November –  
 'Horace' 257-WIS 3  
 From Windsor.

*F* 1993 November –  
 'Rosie' 258-WIS 4  
 From Windsor.

*F* 1993 November –  
 'Thelma' 260-WIS 6  
 From Windsor.

*F* 1993 November –  
 'Babs' 261-WIS 7  
 From Windsor.

*F* 1993 November –  
 'Suki' 262-WIS 8  
 From Windsor.

#### Washington, DC, USA

##### National Zoological Gardens

*M* 1981 May 11 – 1983 April 29  
 'Milton' 755-DOS 6  
 From Doswell and returned there.

*F* 1981 May 11 – 1983 March †  
 'Stormy' 755-DOS 7  
 From Doswell.

#### Wellford, SC, USA

##### Holly Wild Animal Park

This collection is located near Spartanburg,  
 SC, and is owned by David Meek.

*M* 1988 December –  
 'Tank' 903-WPB 29  
 From USA: Ringling Bros. Confirmed to be  
 alive in November 1995 (Marvin Jones).

#### Wellington, New Zealand

##### Zoological Gardens

*M* 1986 April 25 – 1986 May 17  
 'Nakili' 823-SAW 71  
 From San Diego Wild Animal Park. To Christ-  
 church.

*F* 1986 April 25 – 1986 May 17  
 'Utani' 820-SAW 68  
 From San Diego Wild Animal Park. To Christ-  
 church.

*F* 1986 April 25 – 1986 May 17  
 'Mapenzi' 821-SAW 69  
 From San Diego Wild Animal Park. To Christ-  
 church.

#### Werribee, Victoria, Australia

##### Zoological Gardens

*M* 1981 October 19 –  
 'Lee' 600-WHI 39  
 From Whipsnade.

*F* 1981 October 19 – 1989 July 25  
 'Alexandria' 614-WHI 40  
 From Whipsnade. To Dubbo.

*F* 1989 July 25 –  
 'Likwezi' 871-WEP 4  
 From Dubbo.



**West Palm Beach, FL, USA***Lion Country Safari, Inc.*

This is one of four safari parks started by Lion Country Safari, Inc. at the end of the 1960s (the others were at Grand Prairie, Laguna Hills and Stockbridge). The other three parks were all closed, but in 1995 the one in West Palm Beach was still operating. In 1972 (date unknown), the park imported a group of 13 white rhinos from Natal.

*M* 1972 – 1987 July 28 †  
 'Crate-Burn' 558-WPB 1  
 Caught in Natal when it was four years old.

*M* 1972 –  
 'Buck' (or: 'No. 2') 559-WPB 2  
 Caught in Natal when it was four years old.

*M* 1972 – 1981 July 4  
 'No. 3' 560-WPB 3  
 Caught in Natal when it was four years old.  
 To Clifton.

*M* 1972 – 1987 December 5 †  
 'No. 4' 561-WPB 4  
 Caught in Natal when it was four years old.

*M* 1972 – 1981 July 11 †  
 'No. 5' 562-WPB 5  
 Caught in Natal when it was five years old.

*F* 1972 –  
 'Alice' 563-WPB 6  
 Caught in Natal when it was five years old.

*F* 1972 – 1980 October 2 †  
 'Clic-Clic' 564-WPB 7  
 Caught in Natal when it was five years old.

*F* 1972 – 1981 July 31  
 'No. 3' 565-WPB 8  
 Caught in Natal when it was three years old.  
 To Hudson.

*F* 1972 –  
 'Aggi' 566-WPB 9  
 Caught in Natal when it was four years old.

*F* 1972 – 1981 July 4  
 'No. 5' 567-WPB 10  
 Caught in Natal when it was four years old.  
 To Clifton.

*F* 1972 – 1984 November 2 †  
 'No. 6' 568-WPB 11  
 Caught in Natal when it was four years old.

*F* 1972 –  
 'Grunt' 569-WPB 12  
 Caught in Natal when it was four years old.

*F* 1972 – 1981 July 4  
 'No. 8' 570-WPB 13  
 Caught in Natal when it was four years old.  
 To Clifton.

*F* 1974 – 1976 October 11  
 'Amy' 587-PHL 1  
 From Stockbridge. To Philadelphia.

*F* 1979 May 6 – 1989 November 19  
 'Mbili' 612-WPB 16  
 Born to No. 5 (562) and Aggi (566). To Houston.

*M* 1979 August 30 – 1982 May 17  
 'Jack' 611-WPB 15  
 Born to No. 4 (561) and Grunt (569). Sold to J.C. Schulz, Catskill, NY, then to the dealer Wild World, Mitchellville. On 10th November 1982, it went to Davis. According to Ochs (1995), it ended up in Harwood in 1993, but this has not been confirmed.

*M* 1979 September 29 – 1988 December 6 †  
 'George' 610-WPB 14  
 Born to No. 5 (562) and No. 8 (570).

*F* 1979 December 23 – 1982 May  
 'Lisa' 613-WPB 17  
 Born to unknown male and Alice (563). To Mitchellville. Transferred from Mitchellville on an unknown date to a private collection in Branson, MO [not listed here], then again on an unknown date to Noah's Land, Wildlife Park in Harwood, TX, and in June 1994 it went from there to Alvin.

*F* 1980 December 11 –  
 'Lissa' 624-WPB 18  
 Born to No. 5 (562) and No. 3 (565).

*M* 1981 February 25 –  
 'Jabba' 625-WPB 19  
 Born to No. 5 (562) and No. 6 (568).

*F* 1981 May 10 – 1983 February 22 †  
 'Tron' 639-WPB 20  
 Born to No. 5 (562) and Aggi (566).

*M* 1982 April 26 –  
 'Pop' 685-WPB 21  
 Born to No. 5 (562) and Alice (563).

*M* 1983 April 23 – 1985 October 5  
 782-WPB 23  
 Born to unknown male and Alice (563). Sold to the dealer Frank Buck Bring 'em Back Alive, Inc., Sarasota, FL, but no record of further transfers.

*M* 1983 June 16 – 1983 August 4 †  
 'Boggy' 781-WPB 22  
 Born to unknown male and No. 6 (568).

1984 February 11 – 1984 February 11 †  
 792-WPB 24  
 Aborted calf to Buck (559) and No. 6 (568).

*F* 1984 August 4 – 1985 April 12  
 'Julia' 798-WPB 25  
 Born to Buck (559) and Alice (563). To Bogor (via Wingst).

*M* 1984 December 23 – 1988 November 22 †  
 'Rudolph' 808-WPB 26  
 Born to Buck (559) and Aggi (566).

*M* 1986 October 24 – 1987 October 15  
 'Pokey' 857-WPB 27  
 Born to Crate-Burn (558) and Alice (563). To Alvin.

*M* 1986 December 13 – 1990 April 18  
 'Bam-Bam' 858-WPB 28  
 Born Crate-Burn (558) and Aggi (566). To Litchfield Park.

*M* 1987 July 14 – 1987 July 17  
 'Henry' 903-WPB 29  
 Born to Crate-Burn (558) and Grunt (569). To dealer Henry Hampton in Mount Ulla, NC [not listed here]. In August 1987, it was sent to Daves Hales and was exhibited in his Petting Zoo in Missouri [not listed here]. In January 1988 it started touring with the blue unit of Ringling Bros. Circus, and in December 1988 it went to Wellford (information received from Marvin Jones in November 1995).

*M* 1988 September 3 –  
 'Spike' 916-WPB 30  
 Born to Crate-Burn (558) and Aggi (566).



Fig. 158. Group of white rhinoceros at Whipsnade.

*M* 1988 November 21 – 1988 November 26 †  
 'Kevin' 917-WPB 31  
 Born to Crate-Burn (558) and Alice (563).

*F* 1989 February 2 – 1989 February 22 †  
 'Groan' 972-WPB 33  
 Born to Buck (559) and Grunt (569).

*F* 1990 July 1 – 1990 July 7 †  
 'Rock Steady' 961-WPB 32  
 Born to Buck (559) and Aggi (566).

*M* 1992 March 23 –  
 'Axl' 992-WPB 34  
 Born to Buck (559) and Lissa (624).

*F* 1994 July 16 –  
 'Morgana' 1046-WPB 35  
 Born to Pop (685) and Lissa (624).

### Whipsnade, UK

Zoological Society of London  
 Whipsnade Park

Manton (1983) reported on the white rhinos in Whipsnade. Toovey (1979) described their enclosure. Their behaviour and reproduction was studied by Rawlins (1979) and O'Connor (1986). See Figs. 5, 133, 158.

*M* 1962 July 31 – 1962/1963 †  
 Caught in Natal. Died soon after arrival.

*F* 1962 July 31 – 1964 October 14  
 'Mashobeni' 020-LON 2  
 Caught in Natal when it was three years old. To London. Again temporarily shown in Whipsnade from 24th May 1974 to 24th June 1975.

- M* 1967 June 23 – 1985 October 6  
'Rickis' 070-WHI 4  
Caught in Natal when it was two years old. To Kaunas.
- F* 1967 June 23 – 1976 December 19  
'Okhuko' 071-WHI 2  
Caught in Natal when it was one year old. To Dublin.
- M* 1970 August 5 – 1974 March 3  
088-WHI 3  
Caught in Natal when it was one year old. To Colchester.
- M* 1970 August 5 –  
'Gingidholou' 089-WHI 4  
Caught in Natal when it was one year old.
- M* 1970 August 5 – 1975 June 25  
090-WHI 5  
Caught in Natal when it was one year old. To Glasgow.
- M* 1970 August 5 – 1975 June 24  
091-WHI 6  
Caught in Natal when it was one year old. To Glasgow.
- M* 1970 August 5 – 1975 April 12  
'Jonny' 092-WHI 7  
Caught in Natal when it was eight years old. To Kiev.
- M* 1970 August 5 – 1972 June 23  
093-WHI 8  
Caught in Natal when it was eight years old. To Copenhagen.
- M* 1970 August 5 – 1975 January 17 †  
'Malunda' 094-WHI 9  
Caught in Natal when it was ten years old.
- F* 1970 August 5 – 1976 April 20  
095-WHI 10  
Caught in Natal when it was one year old. To Rotterdam.
- F* 1970 August 5 – 1985 October 6  
'Furia' 096-WHI 11  
Caught in Natal when it was one year old. To Kaunas.
- F* 1970 August 5 – 1976 May 10  
'Floozie' 097-WHI 12  
Caught in Natal when it was one year old. To Edinburgh.
- F* 1970 August 5 – 1975 January 17 †  
'Myrtle' 098-WHI 13  
Caught in Natal when it was one year old.
- F* 1970 August 5 – 1985 June 3  
099-WHI 14  
Caught in Natal when it was two years old. To Montevideo.
- F* 1970 August 5 – 1978 October 11 †  
100-WHI 15  
Caught in Natal when it was one year old.
- F* 1970 August 5 – 1973 December 10 †  
'No. 10' 101-WHI 16  
Caught in Natal when it was one year old.
- F* 1970 August 5 – 1991 January 6 †  
'Arabella' 102-WHI 17  
Caught in Natal when it was three years old.
- F* 1970 August 5 – 1986 February 13  
103-WHI 18  
Caught in Natal when it was five years old. To Sofia.
- F* 1970 August 5 – 1988 July 8  
104-WHI 19  
Caught in Natal when it was five years old. To Dublin.
- F* 1970 August 5 –  
'Caroline' 105-WHI 20  
Caught in Natal when it was five years old.
- F* 1970 August 5 – 1986 December 15 †  
106-WHI 21  
Caught in Natal when it was 15 years old.
- F* 1970 August 5 – 1976 January 14 †  
'Mpundu' 107-WHI 22  
Caught in Natal when it was ten years old.
- M* 1971 June 23 – 1973 July 9  
'Mazinda' 130-WHI 22  
Born to unknown male and 104. To Alexandria.
- M* 1972 June 25 – 1976 May 10  
'Kruger' 139-CPH 1  
From Copenhagen. To Edinburgh.

*M* 1973 January 21 – 1974 December 12  
 'Mungo' 214-WHI 23  
 Born to Malunda (94) and 103. To Beijing.

*M* 1973 March 5 – 1975 January 27 †  
 'Budget' 217-WHI 24  
 Born to unknown male and 104.

1974 September 9 – 1974 September 10 †  
 Born to unknown parents. Died after one day.

1974 October 7 – 1974 October 7 †  
 Stillborn to unknown parents.

*F* 1974 October 7 – 1986 November 9  
 'Karibu' 226-WHI 25  
 Born to Malunda (94) and 103. Exhibited in Winchester from 9th November 1986 to 18th August 1988. To Romanèche.

*M* 1974 October 9 – 1976 May 19  
 'Anton' 278-WHI 27  
 Born to unknown male and 99. To Gänserndorf.

*M* 1974 October 15 – 1976 January 5  
 279-WHI 28  
 Born to unknown male and Furia (96). To Gelsenkirchen.

*F* 1974 November 5 – 1974 December 12  
 'Nykasi' 227-WHI 26  
 From Blackpool. To Beijing.

1974 December 8 – 1974 December 9 †  
 Born to unknown parents. Survived only one day.

*F* 1976 September 24 – 1988 November 22 †  
 'Sally' 328-WHI 29  
 Born to Gingidholou (89) and 106. Exhibited in Dublin from 10th November 1977 to 9th July 1988.

*F* 1976 October 7 –  
 'Trio' 329-WHI 30  
 Born to Rickis (70) and 104.

*M* 1976 October 10 – 1977 November 10  
 'Sam' 330-WHI 31  
 Born to Rickis (70) and 105. To Dublin.

*F* 1976 October 23 – 1981 September 17  
 'Nandi' 342-WHI 32  
 Born to unknown male and 100. To Sydney.

*F* 1977 December 27 – 1981 September 17  
 'Margaret' 472-WHI 33  
 Born to Rickis (70) and 103. To Sydney.

*F* 1978 June 30 –  
 'Nowana' 489-WHI 35  
 Born to unknown male and Arabella (102).

*M* 1978 October 15 – 1980 January 27 †  
 'Kali' 485-WHI 34  
 Born to Gingidholou (89) and 106.

*M* 1979 April 29 – 1980 January 27 †  
 490-WHI 36  
 Born to Gingidholou (89) and 105.

*F* 1979 September 26 – 1981 June 30  
 'Grucia' 504-WHI 37  
 Born to Gingidholou (89) and 104. To Paignton.

*M* 1979 December 19 – 1981 June 30  
 'Dale' 532-WHI 38  
 Born to Rickis (70) and 103. To Paignton.

*M* 1980 September 21 – 1981 October 17  
 'Lee' 600-WHI 39  
 Born to Rickis (70) and 106. To Werribee.

*F* 1980 November 6 – 1981 October 17  
 'Alexandra' 614-WHI 40  
 Born to Rickis (70) and Arabella (102). To Werribee.

*F* 1981 October 12 –  
 'Clara' 654-WHI 41  
 Born to Gingidholou (89) and 105.

*F* 1981 November 23 – 1984 January 4 †  
 'Debbie' 665-WHI 42  
 Born to Gingidholou (89) and 103. Skull at the Royal Museum of Scotland, Edinburgh (1991.51.1)

*M* 1982 October 25 – 1982 October 26 †  
 708-WHI 43  
 Born to Rickis (70) and 106.

*M* 1982 December 3 – 1983 December 4  
 'Mandingo' 761-WHI 44  
 Born to Rickis (70) and 104. To Doha.

*M* 1983 March 2 – 1984 June 21  
 770-WHI 45  
 Born to Gingidholou (89) and Arabella (102). To Les Mathes.

- M* 1984 September 23 – 1986 February 13  
'M'Gambo' 800-WHI 46  
Born to Gingidholou (89) and 103. To Sofia.
- M* 1984 December 3 – 1986 May 1  
'Zimba' 803-WHI 47  
Born to Gingidholou (89) and 105. Gestation period 507 days. To Winchester.
- M* 1985 January 9 – 1985 January 9 †  
810-WHI 48  
Stillborn to Gingidholou (89) and 106.
- F* 1985 February 3 – 1985 February 3 †  
811-WHI 49  
Stillborn to Gingidholou (89) and Trio (329).
- M* 1985 October 21 – 1988 August 18  
833-WHI 50  
Born to Gingidholou (89) and Arabella (102). To Winchester.
- F* 1986 August 1 – 1986 August 1 †  
846-WHI 51  
Stillborn to Gingidholou (89) and 106. In the studbook, Nos. 846-WHI 51 and 867-WHI 52 contain exactly the same data (same date, same parents). It is likely that they refer to the same calf.
- F* 1986 August 15 – 1988 August 18  
868-WHI 52  
Born to Gingidholou (89) and Trio (329). To Winchester.
- M* 1986 October 28 – 1986 October 28 †  
869-WHI 53  
Stillborn to Gingidholou (89) and 104.
- F* 1987 December 25 – 1991 November 28  
'Gingabelle' 907-WHI 54  
Born to Gingidholou (89) and Arabella (102). To Emmen.
- M* 1988 May 5 – 1988 June 16  
712-PRC 8  
From Prescott and returned there.
- M* 1988 November 15 – 1994 April 22  
'Charlie' 918-WHI 55  
Born to Gingidholou (89) and Trio (329). To St Pere.
- F* 1989 December 14 – 1990 January 29 †  
'Kshoru' 937-EDB 6  
From Edinburgh.
- F* 1990 December 18 – 1991 November 8 †  
'Noel' 973-WHI 56  
Born to Gingidholou (89) and Arabella (102).
- M* 1990 December 28 – 1994 May 24  
'Harry' 974-WHI 57  
Born to Gingidholou (89) and Trio (329). To Munster.
- M* 1991 October 31 –  
'Nsiswa' 1011-WHI 59  
Caught in Umfolozi.
- F* 1992 June 17 –  
'Mikumi' 962-EDB 7  
From Edinburgh.
- M* 1992 November 16 – 1994 April 19  
'Chris' 1010-WHI 58  
Born to Gingidholou (89) and Trio (389). To Cerza.
- F* 1994 November 25 –  
1047-WHI 60  
Born to Gingidholou (89) and Trio (329).
- Winchester, UK**
- Marwell Zoological Park*
- M* 1986 May 2 –  
'Zimba' 803-WHI 47  
From Whipsnade.
- F* 1986 November 9 – 1988 August 18  
'Karibu' 226-WHI 25  
From Whipsnade and returned there.
- F* 1988 May 6 –  
'Sula' 856-EDB 5  
From Edinburgh.
- M* 1988 August 18 –  
'Saab' 833-WHI 50  
From Whipsnade.
- F* 1988 August 18 –  
'Kiri' 868-WHI 53  
From Whipsnade.

**Windsor, UK***Royal Windsor Safari Park*

This safari park closed in 1993 and all the animals had to be moved to new homes before the end of that year, according to Taylor (1994). The six remaining white rhinos were taken to Longleat Park near Warminster (Taylor 1994: 159-161).

*M* 1972 August 1 – 1993 November  
'Winston' 255-WIS 1  
Caught in Natal when it was three years old.  
To Warminster.

*M* 1972 August 1 – 1979 September 11 †  
'Sonny' 256-WIS 2  
Caught in Natal when it was three years old.

*M* 1972 August 1 – 1993 November  
'Horace' 257-WIS 3  
Caught in Natal when it was three years old.  
To Warminster.

*F* 1972 August 1 – 1993 November  
'Rosie' 258-WIS 4  
Caught in Natal when it was three years old.  
To Warminster.

*F* 1972 August 1 – 1977 August 10 †  
'Tambotie' 259-WIS 5  
Caught in Natal when it was three years old.

*F* 1972 August 1 – 1993 November  
'Thelma' 260-WIS 6  
Caught in Natal when it was three years old.  
To Warminster.

*F* 1972 August 1 – 1993 November  
'Babs' 261-WIS 7  
Caught in Natal when it was three years old.  
To Warminster.

*F* 1972 August 1 – 1993 November  
'Suki' 262-WIS 8  
Caught in Natal when it was five years old.  
To Warminster.

**Wingst, Germany***Baby Zoo*

This collection is owned by the Ruhe company.

*F* 1988 November 30 – 1989 March 31 †  
'Nukta' 925-SAW 86  
From San Diego Wild Animal Park.

**Winnellie, Australia***Tipperary Sanctuary for Endangered Wildlife*

*M* 1990 May 21 –  
'Nakili' 823-SAW 71  
From Christchurch.

*M* 1990 May 21 –  
'Star' 897-STA 12  
From Christchurch.

**Winston, OR, USA***Wildlife Safari*

In 1993, there were three white rhinos at this park. The male 'Jack' (280) was kept off-exhibit. The male 'Shoddy' (029) and the female 'Neva' (030) roam around in an area of about 100 acres with several other species of ungulates. This is a drive-through area. At first, the male used to knock the vehicles and puncture the tyres, but he has settled down. The horns of deceased rhinos are kept at the zoo.

*M* 1974 May 12 – 1974 December 31 †  
271-LAG 12  
From Laguna Hills. The zoo records contain no information about this specimen which lived there for only a few months.

*M* 1975 June 26 – 1994 September 10  
'Jack' 280-SAW 23  
From San Diego Wild Animal Park. To Harwood, where it arrived on 15th October 1994 (via 'Johnson L. Hico', an unexplained destination in Ochs 1995).

*M* 1975 June 26 – 1978 June 4  
281-SAW 24  
From San Diego Wild Animal Park. To Almo.

*F* 1975 June 26 – 1987 April 1 †  
'Jill' 282-SAW 25  
From San Diego Wild Animal Park. Died of pneumonia.

*F* 1975 June 26 – 1976 February 15 †  
283-SAW 26  
From San Diego Wild Animal Park. Died of pneumonia.

*F* 1978 June 26 – 1979 August 1 †  
036-OKC 1

From Oklahoma. Died of trauma and hypothermia.

*F* 1987 November 3 – 1987 November 6 †  
'Mabuhgyani' 049-SFO 2

From San Diego. Died of aneurysmal rupture in the abdominal cavity.

*M* 1988 June 1 –  
'Mshuara' (= 'Shoddy') 029-CHI 1  
From Chicago Brookfield.

*F* 1988 June 9 –  
'Neva' 030-CHI 2  
From Chicago Brookfield.

*F* 1994 September 27 –  
'Taryn' 1039-KNO 19  
From Knoxville.

## Woburn, UK

### Woburn Wild Animal Kingdom

This park imported three pairs of rhinos from Natal in the first half of 1970 (Vincent 1970, Player 1972). When the park opened on 20th May 1970, six white rhinos were on show (*International Zoo News*, 17 (6), p. 203, October 1970). At that time, record keeping was rather poor and no exact dates were written down. See Fig. 159.

*M* 1970 – 1974 May 1  
'Ian' 193-WOB 1  
Caught in Natal when it was two years old. To Hodenhagen.

*M* 1970 –  
'Rudolf' 194-WOB 2  
Caught in Natal when it was two years old.

*M* 1970 – 1980 May 6  
'Thomas' 195-WOB 3  
Caught in Natal when it was two years old. To Dubbo.



Fig. 159. Postcard of Woburn Wild Animal Kingdom (around 1972).

*F* 1970 – 1980 May 6  
'Nicole' 196-WOB 4  
Caught in Natal when it was two years old. To Dubbo.

*F* 1970 March –  
'Mary' 197-WOB 5  
Caught in Natal when it was two years old.

*F* 1970 March –  
'Maggot' 198-WOB 6  
Caught in Natal when it was two years old.

*M* 1977 –  
'Sherman' 118-LNG 3  
From Warminster.

*M* 1982 –  
'Mule' 354-PRC 4  
From Prescott.

*F* 1985 January 8 – 1985 January 8 †  
Stillborn to an unknown male and Mary (197).

*M* 1985 November 7 –  
'Arthur' 355-PRC 5  
From Prescott.

### Wroclaw, Poland

#### *Miesjski Ogród Zoologiczny*

*M* 1980 October 29 –  
'Teny' 531-DVU 21  
From Dvur Kralove.

*F* 1980 October 29 –  
'Tessa' 210-DVU 9  
From Dvur Kralove.

*F* 1980 October 29 – 1985 December 4 †  
'Smudla' 307-DEM 3  
From Dvur Kralove.

### Yamaguchi Prefecture, Japan

#### *Akiyoshidai Safari Park*

*M* 1977 June 15 – 1980 March 17  
'Aka' 498-YAM 1  
Caught in Natal when it was two years old. To the dealer Safeways in Tokyo, Japan, from where it was sold in October 1984 to Nasu.

*M* 1977 June 15 – 1986 January 13 †  
499-YAM 2  
Caught in Natal when it was two years old.

*M* 1977 June 15 –  
'Shiro' 500-YAM 3  
Caught in Natal when it was two years old.

*F* 1977 June 15 –  
'Cha' 501-YAM 4  
Caught in Natal when it was two years old.

*F* 1977 June 15 – 1992 April 8  
'Ki' 502-YAM 5  
Caught in Natal when it was two years old. To Morioka City.

*F* 1977 June 15 –  
'Midori' 503-YAM 6  
Caught in Natal when it was two years old.

### Yangon, Myanmar

#### *Zoological Gardens*

According to Player (1972), this zoo imported two males and two females after 1961. However, only one pair is still recorded. I saw one pair in the zoo in September 1994. See Fig. 161.

*M* 1964 December 27 –  
'Aung Toe' 066-RGN 1  
Caught in Natal. It was three years old on arrival.

*F* 1964 December 27 –  
'Hla Toe' 067-RGN 2  
Caught in Natal. It was three years old on arrival.

### Yokohama, Japan

#### *Kanazawa Zoo*

*F* 1989 February 28 – 1990 October 3  
'Tama' 593-KOY 3  
From Himeji. To Tensin. See Fig. 160.

*M* 1990 September 18 – 1991 July 29  
'Fukio' 745-KYU 12  
From Fujiwara and returned there.



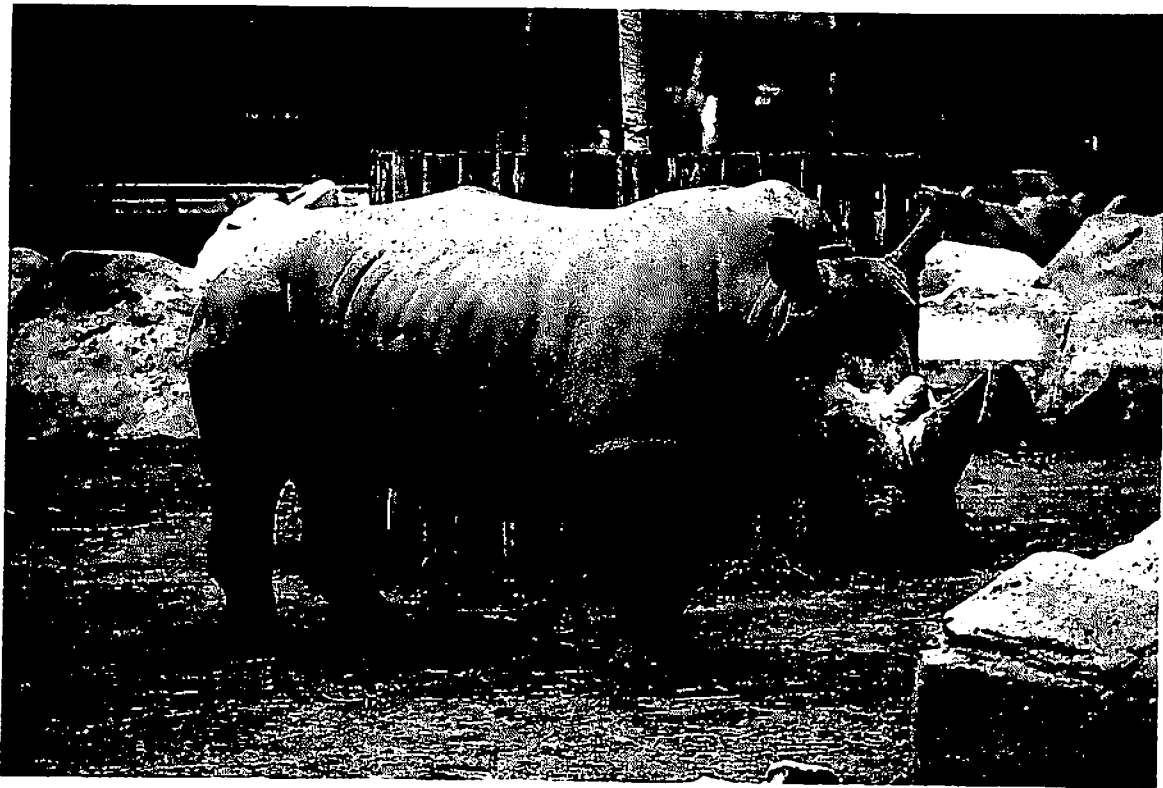


Fig. 160. Female white rhinoceros 'Fukio' in 1993 at Yokohama.



Fig. 161. White rhinoceros enclosure at Yangon, September 1994.

## Yulee, FL, USA

### White Oak Wildlife Center

M 1984 June 21 –  
'Phil' 177-TOL 1  
From Toledo.

F 1984 June 21 – 1988 December 21  
'Bernadine' 178-TOL 2  
From Toledo and returned there.

F 1984 August 22 – 1992 August 26  
'Madge' 043-JAX 2  
From Jacksonville. To International Animal Exchange.

M 1984 October 31 – 1989 April 15  
'Dubelo' 042-JAX 1  
From Jacksonville. To International Animal Exchange.

F 1989 April 12 –  
'Gloria' 533-JAX 6  
From Jacksonville.

M 1989 April 14 –  
'Samson' 379-COL 1  
From Columbia.

F 1991 September 3 – 1994 August 11 †  
'Nina' 1019-YUL 1  
Born to Samson (379) and Gloria (533).

F 1992 December 3 –  
'Edith' 391-JAX 4  
From Jacksonville.

F 1993 August 9 –  
'Julie' 1020-YUL 2  
Born to Phil (177) and Gloria (533).

F 1994 July 1 -  
'Gabriella' 1036-YUL 3  
Born to Phil (177) and Edith (391).

### Zagreb, Croatia

#### Zoological Gardens

M 1987 March 31 -  
'Snoopy' 394-TOR 1  
From Torino.

F 1987 March 31 -  
'Pamela' 395-TOR 2  
From Torino.

### Zimbabwe

#### Various expeditions

1878

When F.C. Selous was hunting near the Umfuli River, south of the Zambesi, in 1878, a female white rhinoceros was shot; her calf was caught and taken back to camp. It was "scarcely larger than a half-grown pig". It refused food and had to be shot after a few days "though not without regret, for I should much have liked to rear it" (Selous 1881: 361-362).

1892

R.T. Coryndon travelled from the Zambesi River to Salisbury (Harare) in 1892, when one of his companions, Arthur Eyre, shot an old female white rhinoceros: "she had a small calf with her, and we captured it with the intention of bringing it to England. In spite of our greatest care, however, it died on the ninth day" (Coryndon 1894: 333).

### Zurich, Switzerland

#### Zoologischer Garten

M 1965 May 24 - 1980 June 10  
'Abu' 017-ZRH 1  
Caught in Natal (imported by Ruhe, Hannover, on 27th August 1964) when it was four years old. To Augsburg.

F 1965 May 24 - 1980 June 10  
'Toto' 018-ZRH 2  
Caught in Natal (imported by Ruhe, Hannover, on 27th August 1964) when it was four years old. To Augsburg.

## 9. References

List of 613 references to earlier literature on the rhinoceros in captivity.

- Achard PL, McCulloch B (1967) Creation of a Zoo in Tanzania: Saanane Island Game Reserve. *International Zoo Yearbook* 7:235-240
- Adcock K, Emalie R (1994) The role of trophy hunting in white rhino conservation, with special reference to Bop parks. In: Penzhorn BL, Kriek NRJ (eds) *Proceedings of a Symposium on Rhinos as Game Ranch Animals*, Onderstepoort, Republic of South Africa, 9-10 September 1994, pp 35-41
- Albinus BS (1747) *Tabulae sceleti et musculorum corporis humani*. Lugduni Batavorum
- Ali SA (1927) The breeding of the Indian rhinoceros (*Rhinoceros unicornis*) in captivity. *Journal of the Bombay Natural History Society* 31(4):1031
- Ali SA, Santapau H (1958) Birth of a great Indian rhinoceros in captivity. *Journal of the Bombay Natural History Society*, 55(1):157-158, 1 pl
- Amato G, Wharton D, Zainuddin ZZ, Powell JR (1995) Assessment of conservation units for the Sumatran rhinoceros (*Dicerorhinus sumatrensis*). *Zoo Biology* 14:395-402
- Andersen S (1963) Sumatran rhinoceros (*Didemocrus sumatraensis*) at Copenhagen Zoo. *International Zoo Yearbook*, 3:56-57
- Anderson J (1872) Notes on *Rhinoceros sumatrensis*, Cuvier. *Proceedings of the Zoological Society of London* 1872:129-132
- Anderson J (1883) *Guide to the Calcutta Zoological gardens*. Calcutta
- Anonymous (1835) [The rhinoceros.] *Dublin Penny Journal* 4(165):68-69, 1 pl
- Anonymous (1872) The Sumatra rhinoceros. *Illustrated London News* 23 March 1872:284
- Anonymous (1878) *List of Animals in the Zoological Gardens, Calcutta*. Printed at the Bengal Secretariat Press
- Anonymous (1895) The Sumatra rhinoceros in the Leipzig zoological garden. *Scientific American* 72(16):245, 1 fig
- Anonymous (1896a) All about animals for old & young: popular, interesting, amusing. London
- Anonymous (1896b) *Geschäftsbericht für das Breslauer Zoologischen Gartens für das Jahr 1895*. *Zoologische Garten* 37(9):278-283
- Anonymous (1918) Death of the Indian rhinoceros. *Zoological Society Bulletin*, New York 21(5):1673
- Anonymous (1924) Indian rhino, young female. *Zoological Society Bulletin*, New York, 27(3):72, 1 fig
- Anonymous (1930) *Nachrichten aus Dresden*. *Zoologische Garten* (NF) 2:352-353
- Anonymous (1952) A rhinoceros at last. *Zoonooz*, San Diego 25(10):2-3, 2 figs
- Anonymous (1955) [Arrival of Kanakbala.] *America's First Zoo*, Philadelphia 7(4):1-2
- Anonymous (1959) [Arrival of Sumatran rhinoceros in Basel.] *Freunde des Kölner Zoo* 2(3):24, 1 fig
- Anonymous (1966) White rhino in Kenya. *Africana* 2(8):19
- Anonymous (1974) The birth of an Indian rhinoceros. *The Zoogoer*, Washington 3(2):3-7, 4 figs
- Anonymous (1990) *Mysore Zoo and Baroda Zoo*. *Zoos' Print*, Coimbatore 5(6):24
- Anonymous (1992) *Rhinoceros: The Horn of a Dilemma*. National Museums & Galleries on Merseyside, Liverpool
- Anonymous (1995) A rhino named Jafar. *Zoonooz*, San Diego 68(2):7, 2 figs
- Antonius O (1937) *Bilder aus dem früheren und jetzigen Schönbrunner Tierbestand. I. Nashörner*. *Zoologische Garten* (NF) 9:18-26, figs 1-7
- Aritake T (1959) Transporting 'King of Tama', the male Indian rhinoceros. *Animals and Zoo*, Tokyo 11(2):16-18, 3 figs
- Aschaffenburg R, Gregory ME, Rowland SJ, Thompson SY, Kon VM (1961) The composition of the milk of the African black rhinoceros (*Diceros bicornis*; Linn.). *Proceedings of the Zoological Society of London* 137:475-479, fig 1
- Atkins T (1838) *List of the animals in the Liverpool Zoological Gardens, with notices respecting them*. Liverpool
- Baetens R (1993) *De roep van het paradijs: 150 jaar Antwerpse Zoo*. Tiel
- Ball V (1877) Notes on certain mammals occurring in the Basin of Mahanadi. *Proceedings of the Asiatic Society of Bengal*, July 1877:168-172
- Barnaby D (1988) *The Elephant who Walked to Manchester*. Plymouth
- Barnaby D (1995) Dispersal of the animals from the Broughton Zoological Gardens. *Journal, The Bartlett Society* 6:24-25
- Barrow JH (1832) *Characteristic sketches of animals, principally in the Zoological Gardens, Regent's Park, drawn from the life and engraved by Thomas Landseer: with descriptive and illustrative notices*. London
- Barth JM (1747) *Schreiben an einen guten Freund*. Regensburg
- Bartlett AD (1873) On the birth of a Sumatran rhinoceros. *Proceedings of the Zoological Society of London* 1873:104-105, 1 pl
- Basel Zoo (1980) Tobler K, Rüedi D (eds) *International Studbook for the Great Indian Rhinoceros *Rhinoceros unicornis**, 2nd edn. Basel
- Basel Zoo (1982) *Idem*, 3rd edn
- Basel Zoo (1985) *Idem*, 4th edn
- Basel Zoo (1988) *Idem*, 5th edn
- Basel Zoo (1991) *Idem*, 6th edn
- Basel Zoo (1993) *Idem*, 7th edn
- Basel Zoo (1995) *Idem*, 8th edn
- Basel Zoo (1997) *Idem*, 9th edn, Wirz-Hlavacek G, Studer P (eds)
- Bastin J (1990) The natural history researches of Dr Thomas Horsfield (1773-1859), first American naturalist of Indonesia. In: Thomas Horsfield, *Zoological Researches in Java, and the Neighbouring Islands*. Singapore, pp 1-97
- Basu B (1910-1913) Report of the Honorary Commit-

- tee for the Management of the Zoological Garden, for the year 1909-1910 [1910]; 1911-1912 [1912]; 1912-1913 [1913].
- Bean EH (1941) Baby rhinoceros at Chicago zoological park. *White Tops*, Christmas 1941:8
- Beaux O de (1912) Über einige Säugetiere in Carl Hagenbecks Tierpark in Stellingen. *Zoologische Anzeiger* 39:561-575, figs 1-6
- Beddard FE, Treves F (1887) On the anatomy of the Sondaic rhinoceros. *Transactions of the Zoological Society of London* 12:183-198, pls 33-37, 3 figs
- Beddard FE, Treves F (1889) On the anatomy of Rhinoceros sumatrensis. *Proceedings of the Zoological Society of London* 1889:7-25, figs 1-10
- Begg TB (1986) Transportation of the rhinos from Sumatra. *Help Newsletter*, Friends of Howletts and Port Lympne 8:24-25
- Begg TB (1988) The Sumatran Rhino project. *Help Newsletter*, Friends of Howletts and Port Lympne 10:12-13, 2 figs
- Bergen CA von (1746) *Oratio de rhinocerote*. Francofurti ad Viadrum
- Bergh W van den (1955) Nos rhinocéros blancs (*Ceratotherium simum cottoni* Lydekker). *Zoologische Garten* (NF) 21(3):129-151, figs 1-17
- Berkheij J le Franq van (1784) *Eerste catalogus van de uitgebreide systematische natuurkundige verzameling van teekeningen, printen en afgezette afbeeldingen*. Amsterdam
- Bernier F (1699) *Voyages, contenant la description des Etats du Grand Mogol, de l'Hindoustan, du Royaume de Kachimiri*, vol 2. Amsterdam
- Bhandary SR, Tuladhar BS, Thapa BR, Jha JS (1990) Malicious poisoning in rhinoceroses: a case report. *Bulletin Veterinarian Science & Animal Husbandry*, Kathmandu 17/18:19-24
- Bhatia CL, Desai JH (1971) Breeding of the Indian rhinoceros (*Rhinoceros unicornis*) at Delhi zoological park. *Journal of the Bombay Natural History Society* 68(3):820-823, 1 pl
- Bhatia CL, Desai JH (1975) Breeding the Indian rhinoceros at Delhi zoological park. In Martin RD (ed) *Breeding Endangered Species in Captivity*, pp 303-307, figs 1-2. London
- Bhattacharyya BK, Goswami UC (1987) Some observations on the process of parturition, neonate and maternal behaviour in Great Indian one horned rhinoceros (*Rhinoceros unicornis*). *Zoos' Print*, Coimbatore 2(8):6-8, 1 fig
- Bigalke R (1946) The regeneration of the anterior horn of the black rhinoceros, *Diceros bicornis* (Linn.). *Proceedings of the Zoological Society of London* 115:323-326, pls 1-2
- Bigalke R (1947) Pretoria zoo has a baby white rhinoceros. *Animal Kingdom* 50(2):48-55, figs 1-8
- Bigalke R (1961) White rhinos at Pretoria Zoo. *International Zoo Yearbook* 2:43-44
- Bigalke R (1975) Das Breitmaulnashorn (*Ceratotherium simum simum*) zum ersten Male in einem Zoo. *Zoologische Garten* (NF) 45(1):4-8, figs 1-3
- Bigalke R, Steyn T, De Vos D, De Waard K (1950) Observations on a juvenile female square-lipped rhinoceros (*C.s.simum* (Burch.)) in the National Zoological Gardens of South Africa. *Proceedings of the Zoological Society of London* 120:519-528, pls 1-3
- Bingley W (1804) *Animal Biography; Or, Authentic Anecdotes or the Lives, Manners, and Economy, of the Animal Creation, Arranged According to the System of Linnaeus*, 2nd edn, vol 1: Quadrupeds. London
- Blaszkiewicz B (1980) Gedanken zur Haltung des Panzernashorns (*Rhinoceros unicornis* Linné, 1758). *Zoologische Beiträge* (NF) 26:69-108
- Blaszkiewicz B (1983) Nashörner im Zoo (gefährdete Riesen in Menschenhand). *Sitzungsberichte der Gesellschaft naturforschender Freunde zu Berlin* (NF) 23:54-57, 1 fig
- Blaszkiewicz B (1986) *Diceros 'tricornis': ein dreihörniges Spitzmaulnashorn im Berliner Zoo*. Bongo, Berlin 11:123-124
- Blaszkiewicz B (1991a) Anmerkungen zu Lebensalter und Reproduktionsrate Berliner Nashörner. In: Klös and Frese 1991, pp 37-43, figs 1-5
- Blaszkiewicz B (1991b) Panzernashorn (*Rhinoceros unicornis*): Bilder aus dem Tierpark Berlin-Friedrichsfelde. *Milu*, Berlin 7(3):229-235, figs 1-8
- Blaszkiewicz B (1992) Das neue Elefantenhaus im Tierpark Berlin-Friedrichsfelde. *Zoologische Garten* (NF) 62(4):212-221, figs 1-11
- Blaszkiewicz B (1993a) 32jähriges Breitmaulnashorn (*Ceratotherium simum*) gestorben. *Zoologische Garten* (NF) 63(3):207
- Blaszkiewicz B (1993b) Breitmaulnashorn (*Ceratotherium simum*): Bilder aus dem Tierpark Berlin-Friedrichsfelde. *Milu*, Berlin 7:51-56, figs 1-7
- Blaszkiewicz B (1994a) Erneut: Stirnhorntragendes Nashorn. *Zoologische Garten* (NF) 64(2):111, fig 1
- Blaszkiewicz B (1994b) Spitzmaulnashorn (*Diceros bicornis*): Bilder aus dem Tierpark Berlin-Friedrichsfelde. *Milu*, Berlin 8:110-115, figs 1-7
- Blaszkiewicz B (1995) Frühe Geschlechtsreife bei einem Panzernashorn-♀ (*Rhinoceros unicornis*). *Zoologische Garten* (NF) 65 (4):267
- Blumenbach JF (1791) Anmerkungen in: J. Bruce, *Reisen zur Entdeckung der Quellen des Nils in den Jahren 1768, 1769, 1770, 1771, 1772, und 1773*, vol 5. Leipzig
- Blunt W (1976) *The Ark in the Park: The Zoo in the Nineteenth Century*. London
- Blyth E (1862) A memoir of the living Asiatic species of rhinoceros. *Journal of the Asiatic Society of Bengal* 31(2):151-175, pls 1-4
- Blyth E (1863) *Catalogue of the Mammalia in the Museum Asiatic Society*. Calcutta
- Blyth E (1868/1869) Rhinoceros shedding their horns. *Journal of Travel and Natural History* 1:70
- Blyth E (1875) *Catalogue of the mammals and birds of Burma*. *Journal of the Asiatic Society of Bengal* 44(extra No):1-167
- Böer M, Hamza H (1996) Haltung und Zucht des Breitmaulnashorns (*Ceratotherium s. simum*) in Serengeti Safaripark Hohenhausen. *Zoologische Garten* (NF) 66(6):349-364, figs 1-7
- Bölsche W (1910) *Het Paard in Zijne Natuurlijke Ontwikkeling*, Bewerkt door B.C. Goudsmit. Zutphen (Original German from 1909)
- Bolau H (1900) Das Ende des Indischen Nashorns im Hamburger Zoologischen Garten. *Zoologische Garten* (AF) 41(11):334-336
- Bonal BS, Sharma R, Barthakur T, Barua B, Das DC, Boro S (1995) Birth of a female Indian rhino calf in Assam State Zoo. *Zoos' Print*, Coimbatore 10(9):28-29, 2 figs



Fig. 162. Male black rhinoceros in Tel Aviv (now Ramat Gan) in 1970.

- Bonannius P (1773) *Rerum naturalium historia*, vol 1. Rome
- Bosi EJ (1996) Mating Sumatran rhinoceros at Sepilok Rhino Breeding Centre, Sandakan, Sabah, Malaysia. *Pachyderm*, Nairobi 21:24-27, 1 fig
- Brachetka J (1947) *Schönbrunn und sein Tiergarten*. Vienna
- Brandes G (1935) *Dresden. Zoologische Garten* (NF) 8:171-172
- Brehm AE (1877) *Thierleben, allgemeine Kunde des Thierreichs. Große Ausgabe, 2. Umgearbeitete und vermehrte Auflage. Säugethiere*, vol 3. Leipzig
- Brentjes B (1969) Eine Darstellung des Bengalischen Javanashorns *Rhinoceros sondaicus inermis* Lesson, 1840. *Säugetierkundliche Mitteilungen* 17:209-211, figs 1-2
- Brentjes B (1973) Naturschutz und Tierparks im alten Orient. *Zoologische Garten* (NF) 43:248-255, figs 1-6
- Brentjes B (1978) Die Nashörner in den alten orientalischen und afrikanischen Kulturen. *Säugetierkundliche Mitteilungen* 26(2):150-160, figs 1-14
- Bridges W (1962) Two square-lipped rhinoceroses come to the zoo. *Animal Kingdom*, New York 65(5):146-150, 7 figs
- Brod WM (1958) 'Jungfer Clara'. *Mainfränkische Bilder* 59:2-3, figs 6-9
- Broom R (1946) The first white rhino in captivity. *Natural History* 55(9):432-433, 3 figs
- Brouard P (1978) Lisbon's unusual zoo guest: a 3-horn black rhino (*Diceros bicornis*). *International Zoo News* 25(2):12-13, 2 figs
- Bruggen AC van (1965) Waar komen onze breedlip-neushoorns vandaan? *Blijdorp Geluiden*, Rotterdam 13(9):2-3, 1 fig
- Buck F (1930) *Bring 'em Back Alive*. New York
- Buck F, Fraser W (1941) *All in a Lifetime*. New York
- Buckland CT (1889) Birth of a Rhinoceros at Calcutta. *Field*, 2 March 1889: 308 [summarized in *Zoologische Garten* (AF) 30(7):223 (1889)]
- Buckland F (1858) The wild beast show. *The Field, the Farm, the Garden* 12(309), 27 November 1858:436
- Buckland F (1870) Strange ice accident to the rhinoceros. *Land and Water*, December 31, 1870:484
- Buckland F (1872) A new rhinoceros at the Zoological Gardens. *Land and Water*, August 10, 1872:89
- Buckland F (1882) *Curiosities of Natural History*, 3rd edn. London
- Buechner HK, Mackler SF (1978) Breeding behavior in captive Indian rhinoceros. *Zoologische Garten* (NF) 48:305-322, figs 1-6
- Buechner HK, Stroman HR, Xanten WA (1975) Birth of an Indian rhinoceros, *Rhinoceros unicornis*, at the National Zoological Park, Washington. *International Zoo Yearbook* 15:160-165
- Buffon GL Leclerc de (1764) *Histoire Naturelle, Générale et Particulière, Avec la description du Cabinet du Roi*, vol 11. Paris
- Buffon GL Leclerc de (1778) Addition a l'article Rhinocéros. In: *Histoire Naturelle, Générale et Particulière, Servant de Suite a l'Histoire des Animaux Quadrupèdes*, new edn, Suppl IV, pp 133-135, pl 67. Amsterdam

- Buntaran L (1987) Preparation to breed the Sumatran rhinoceros in England. *Rimba Indonesia* 21(1):59-61
- Burne RH (1905) On the viscera of an Indian rhinoceros. *Proceedings of the Zoological Society of London* 1905:56-58
- Buyts D (1987) A summary of the introduction of white rhino onto private land in the Republic of South Africa. Report for the Rhino and Elephant Foundation
- Buyts D, Anderson J (1989) Disquiet was justified: white rhinos on private land in South Africa. *The Rhino & Elephant Journal* 2:26-31, 2 figs
- Camper P (1782) *Natuurkundige Verhandeling over den Orang Outang, en eenige andere Aapsoorten; over den Rhinoceros met den Dubbelen Horen; en over het Rendier*. Amsterdam
- Carnio J (1992) Zoo reports significant rhino birth. *AAZPA Communique*, April 1992
- Cave AJE (1985) An unrecorded specimen of the Javan rhinoceros (*Rhinoceros sondaicus*). *Journal of Zoology, London (A)* 207:527-535, pls I-IV, fig 1
- Cave AJE, Aumonier FJ (1962) Lymph node structure in the Sumatran rhinoceros. *Journal of the Royal Microscopical Society*, 81(2):73-77
- Cave AJE, Aumonier FJ (1963) The visceral histology of the Sumatran rhinoceros. *Journal of the Royal Microscopical Society* 82:29-37
- Chardin J (1711) *Voyage en Perse*. Amsterdam
- Cheminaud G (1939) *Mes Chasses au Laos: Les Bêtes Sauvages de l'Indochine*. Paris
- Chenu JC, Desmarest E [1858] *Encyclopédie d'Histoire Naturelle ou Traité Complet de Cette Science*, vol 4. Paris
- Chowdhury T (1966) A note on breeding Indian rhinoceroses at Gauhati Zoo. *International Zoo Yearbook* 6:197
- Christopher SA (1916) *Big Game Shooting in Lower Burma*. Rangoon
- Chijs JA van der (1889) *Dagh-Register gehouden int Casteel Batavia vant passerende daer ter plaetse als over geheel Nederlandts-India, anno 1661*. Batavia
- Cillie H (1949) *Zuluana die Witrenoster*. Pretoria
- Clarke TH (1974) The iconography of the rhinoceros, part II: The Leyden rhinoceros. *Connoisseur* 185(744):113-122, figs 1-23
- Clarke TH (1984) Two rhinoceros drawings re-attributed. *Burlington Magazine*, October 1984:625-629, figs 28-33
- Clarke TH (1986) *The Rhinoceros from Dürer to Stubbs, 1515-1799*. London
- Coenraad-Uhlig V (1933) Vom Gefangenleben eines jungen Nashorns. *Zoologische Garten (NF)* 6:114-116, figs 1-5
- Colls D, Descamps C, Faure M, Guérin C (1985) The bronze black rhinoceros from Port Vendres III. *Antiquity* 59:106-112, pl 17, fig 1
- Conklin G (1921) *The Ways of the Circus*. New York/London
- Coryat T (1616) *Traveller for the English Wits: Greetings*. Reprinted by William Foster (ed) 1921. Early travels in India 1583-1619. London
- Coryndon RT (1894) On the occurrence of the white or Burchell's rhinoceros in Mashonaland. *Proceedings of the Zoological Society of London*, 1894:329-334, pl 18
- Crandall LS (1964) *The Management of Wild Mammals in Captivity*. Chicago/London
- Crandall LS (1966) *A Zoo Man's Notebook*. Chicago/London
- Crotty M (1982) Indian rhinoceros born at Los Angeles Zoo. *AAZPA Newsletter* 23(4):20
- Croij, Duc de (1906) *Journal inédit 1718-1784*, vol 2. Paris
- Cuvier G (1804) *Le rhinocéros unicorne*, *Rhinoceros unicornis*. In: Lacépède, De la Ville BGE, Cuvier G (eds) *La Ménagerie du Muséum National d'Histoire Naturelle*, vol IX, pp 1-8, pl 33. Paris
- Das AK (1985) Birth of rhino calf in Alipore Zoological Garden. *Indian Zoo Bulletin* 4(1):13-14
- Dittrich L (1965) Geburt eines Spitzmaulnashorns im Zoo Hannover. *Freunde des Kölner Zoo* 8(3):90-92, 3 figs
- Dittrich L (1967) Breeding the black rhinoceros, *Diceros bicornis*, at Hanover Zoo. *International Zoo Yearbook* 7:161-162, fig 44
- Dittrich L (1971) Beobachtungen zur Jugendentwicklung eines Breitmaulnashorns (*Ceratotherium s. simum*) im Zoo Hannover. *Zeitschrift des Kölner Zoo* 14(2):73-81, figs 1-9
- Dittrich L (1972) Birth and growth of a male white rhinoceros *Ceratotherium simum* at Hanover Zoo. *International Zoo Yearbook* 12:122-125
- Dittrich L, Rieke-Müller A (1990) Ein Garten für Menschen und Tiere. Hannover
- Dixon A, MacNamara M (1981) Observations on the social interactions and development of sexual behaviour in three sub-adult, one-horned Indian rhinoceros (*Rhinoceros unicornis*) maintained in captivity. *Zoologische Garten (NF)* 51(1):65-70
- Dolan JM Jr, Killmar LE, Penny CG (1990) The mammal collection of the Zoological Society of San Diego, a historical perspective, Part IV: Orycteropodidae to Camelidae. *Zoologische Garten (NF)* 60: 93-132, figs 1-21
- Douliez H (1979) Planckendael en dierentuin ruilen neushoorns. *Zoo, Antwerpen* 44(4):140-142, 5 figs
- Douliez H (1986) Zoologische aanwinsten in het Domein Planckendael. *Zoo, Antwerpen* 51(3):30-31
- Dutta AK (1991) *Unicornis: the Great Indian One-Horned Rhinoceros*. Delhi
- Edwards G (1758) *Gleanings of Natural History*, vol 5. London
- Edwards J (1996a) London Zoo from old Photographs 1852-1914. London
- Edwards J (1996b) The value of old photographs. In: Hoage RJ, Deiss WA (eds) *New World, New Animals: From Menagerie to Zoological Park in the Nineteenth Century*, pp 141-150. Baltimore/London
- Ehrlinger D (1993) *The Cincinnati Zoo and Botanical Garden: from Past to Present*. Cincinnati
- Ellison BC (1922) H.R.H. The Prince of Wales' shoots in India in 1921 and 1922. *Journal of the Bombay Natural History Society* 28(3):675-697, 9 pls
- Emmerig H (1978) Das Rhinoceros in Europa 1741-1758 und seine Medaillen. *Money Trend* 10(5):20-25, 50-52
- Epstein L (1897) Schilderungen aus dem Zoologischen Garten zu Frankfurt a.M. *Zoologische Garten* 38(6):174-179
- Epstein L (1899) Ein Ausflug nach den zoologischen Gärten von Holland und Belgien. *Zoologische Garten* 40:5-14

- Eriksen E (1977) Birth of two white rhinoceroses (*Ceratotherium simum simum*) at the Copenhagen Zoo. *Zoologische Garten (NF)* 47(1):33-44, figs 1-8
- Ettinghausen R (1950) Studies in Muslim iconography, I: The unicorn. Freer Gallery of Art, Occasional Papers, Washington, 1(3):i-xii, 1-209
- Ezzat MA Elmoneim (1945) Helminth parasites of some ungulates from the Giza zoological gardens, Egypt. With an appendix on some nematodes from the African rhinoceros. *Bulletin Technical and Scientific Service (veterinary section), Ministry of Agriculture, Egypt* 241:i-vi, 1-104, pls 1-55
- Falkner M (1991) Talking with rhinos. *Friends of the Zoo, Virginia Zoological Society* 5(1):1-5
- Faust I (1978) Jungfer Clara im Ballhof. *Zoofreund, Hannover* 18:2-3, 4 figs
- Faust R (1958) Die Geburt eines Spitzmaulnashornes (*Diceros bicornis* L.) in Frankfurt. *Zoologische Garten (NF)* 22(3):208-214, figs 1-6
- Finlayson HH (1950) Notes on the cranial and dental characters of a specimen of *Rhinoceros sondaicus* Desm. *Proceedings of the Zoological Society of London* 120:151-154
- Fitzinger LJFJ (1860) *Wissenschaftlich-populäre Naturgeschichte der Säugethiere*, vol 3. Vienna
- Florio PL (1972) [Rhinoceros in Naples.] *International Zoo News* 19(1):31
- Flower SS (1900) On the Mammalia of Siam and the Malay Peninsula. *Proceedings of the Zoological Society of London* 1900:306-379, 1 fig
- Flower SS (1906) Report on a Mission to Europe, 1905. Cairo
- Flower SS (1908) Notes on Zoological Collections Visited in Europe, 1907. Cairo
- Flower SS (1914) Report on a Zoological Mission to India in 1913. Cairo
- Flower SS (1931) Contributions to our knowledge of the duration of animal life in vertebrate animals. V: Mammals. *Proceedings of the Zoological Society of London* 1931(1):145-234
- Flower WH (1886) On additions to the menagerie. *Proceedings of the Zoological Society of London* 1886:266-267
- Flower WH, Garson JG (1884) Catalogue of specimens ... contained in the Museum of the Royal College of Surgeons of England, vol 2. London
- Foose T (1987) Sumatran rhino born at Melaka Zoo in Malaysia. *AAZPA Newsletter* 28(9):22, 1 fig
- Foose T (1994a) International Studbook for Sumatran rhino (*Dicerorhinus sumatrensis*), 1 September 1994
- Foose T (1994b) International Studbook for Sumatran rhino (*Dicerorhinus sumatrensis*), 31 December 1994
- Foose T, Miller RE (1994) African rhinoceros populations in North America. In: Penzhorn BL, Kriek NRJ (eds) *Proceedings of a Symposium on Rhinos as Game Ranch animals, Onderstepoort, Republic of South Africa, 9-10 September 1994*, pp 31-34
- Foose T, Zainuddin ZZ (1991) International Studbook for Sumatran rhino (*Dicerorhinus sumatrensis*). Unpublished draft, 10 September 1991
- Forbes WA (1885) On the male generative organ of the Sumatran rhinoceros (*Ceratotherium sumatrensis*). *Transactions of the Zoological Society of London* 11:107-109, pl 20
- Francke R, Schwarzenberger F (1991) Trächtigkeitsdiagnose durch Steroidhormonanalyse aus Kotproben bei einem Spitzmaulnashorn (*Diceros bicornis*) im Zoologischen Garten Berlin. In: Klös and Frese 1991, pp 44-48, 4 figs
- Freiheit CF (1975) Rhinos for the future. *Zoo Review, Denver, Winter 1975*:4-5, 2 figs
- Frese R (1983) Protokoll einer Spitzmaulnashorngeburt. In: Klös and Frese 1983, pp 38-40
- Fryer J (1698) *A New Account of East-India and Persia*. London
- Furley C (1987) The death of Subur. *Help Newsletter, Friends of Howletts and Port Lympne* 9:43, 1 fig
- Furley C (1993a) The management, behaviour and health of rhinos at Port Lympne. In: Ryder 1993, pp 299-301
- Furley C (1993b) The clinical history of the adult female Sumatran rhinoceros, called 'Subur', in captivity in Sumatra and at Port Lympne Zoo, Kent, Great Britain. In: Ryder 1993, pp 357-366
- Gandillon R (1980) *Salimbanques et comédiens au foires de Reims. Mémoires de la Société d'Agriculture, Commerce, Sciences et Arts de la Marne* 95:121-165
- Garrod AH (1873) On the visceral anatomy of the Sumatran rhinoceros (*Ceratotherium sumatrensis*). *Proceedings of the Zoological Society of London*, 21 January 1873:92-104
- Garrod AH (1877) On some points in the visceral anatomy of the rhinoceros of the Sunderbunds (*Rhinoceros sondaicus*). *Proceedings of the Zoological Society of London* 1877:707-711, figs 1-3
- Gee EP (1952) Catching a bride for 'Mohan'. *Zoo Life* 7(3):102-105, 7 figs
- Gens E (1861) *Promenade au Jardin Zoologique d'Anvers*. Antwerpen
- Geoffroy St Hilaire E, Cuvier F [1820]. *Le rhinocéros unicolore mâle*. In: *Histoire Naturelle des Mammifères*, vol 6, pp 1-3, pls 1-2. Paris
- Gervais FLP, Gervais HFP (1875) Structure de l'intestin grêle chez le rhinocéros. *Journal de Zoologie* 4:465-474, pls 11-12
- Gewalt W (1972) Africanum, a new exhibit for African steppe wildlife at Duisburg Zoo. *International Zoo Yearbook* 12:86-88, 2 figs
- Giese U (1962) *Wiener Menagerien*. Vienna
- Gleiss HGW (1967) Unter Robben, Gnus und Tigerschlängen: Chronik des Zoologischen Gartens Breslau 1865-1965. Wedel
- Gmelin S [G] (1767) Waarneeming over den Rhinoceros of Neushoorn. *Verhandelingen Hollandsche Maatschappij voor Wetenschappen te Haarlem* 9:632-636
- Gölsenboth R (1986) Zur tierärztlichen Betreuung der Nashörner im Zoo Berlin. *Zoologische Garten (NF)* 56(1):43-52, figs 1-4
- Gölsenboth R (1995) International Studbook for African Rhinoceroses, 6th edn: *Diceros bicornis*, 30.11.1995. Berlin, Zoologischer Garten
- Gölsenboth R (1997) International Studbook for African rhinoceroses, 7th edn: *Diceros bicornis*, 31.12.1996. Berlin, Zoologischer Garten
- Goens R van (1995) Javaanse Reyse: de bezoeken van een VOC-geant aan het hof van Mataram 1648-1654, De Wever D (ed). Amsterdam
- Gouveia A de Mello (1969) Black rhinoceros born. *International Zoo News* 16(2):48
- Gowers W (1950) The classical rhinoceros. *Antiquity* 24:61-71, figs 1-6

- Graaff N de (1701) *Reisen na de vier gedeelten des werelds*. Edited in *Works of the Linschooten-Vereeniging*, vol 33 (1930). The Hague
- Granier N (1995) White rhinos to Kenya. *Swara*, Nairobi 18(3):10-12, 3 figs
- Greed GR (1967) Notes on the breeding of the black rhinoceros *Diceros bicornis* at Bristol Zoo. *International Zoo Yearbook* 7:158-161
- Greeley ML (1989) Lady in red. *Zoonooz*, San Diego 62(4):11
- Gregory ME, Rowland SS, Thompson SY, Kon VM (1965) Changes during lactation in the composition of the milk of the African black rhinoceros (*Diceros bicornis*). *Proceedings of the Zoological Society of London* 145:327-333, figs 1-2
- Griffith E (1827) *The Animal Kingdom Arranged in Conformity with its Organization by the Baron Cuvier*, vol 3. London
- Groves CP (1967) Geographic variation in the black rhinoceros *Diceros bicornis* (L., 1758). *Zeitschrift für Säugetierkunde* 32(5):267-276
- Groves CP (1971) Species characters in rhinoceros horns. *Zeitschrift für Säugetierkunde* 36:238-252, figs 1-19
- Groves CP (1982) The skulls of Asian rhinoceroses: wild and captive. *Zoo Biology* 1:251-261
- Groves CP (1993) Testing rhinoceros subspecies by multivariate analysis. In: Ryder 1993, pp 92-100
- Groves CP, Chakraborty S (1983) The Calcutta collection of Asian rhinoceros. *Records of the Zoological Survey of India* 80:251-263
- Grünberg W, Burtcher H (1968) Über eine pockenartige Krankheit beim Rhinoceros (*Diceros bicornis* L.). *Zentralblatt für Veterinärmedizin (B)* 15:649-657, figs 1-8
- Grzimek B (1957) Die Zusammensetzung der Nashornmilch. *Milchwissenschaft* 12(6):231
- Grzimek B (1958) Die gegenwärtige Zahl der Nashörner auf der Erde. *Säugetierkundliche Mitteilungen* 6(3):117-120
- Grzimek B (1960) Die gegenwärtige Zahl der Nashörner auf der Erde (II). *Säugetierkundliche Mitteilungen* 8:21-25, figs 1-2
- Guggisberg CAW (1966) *S.O.S. Rhino*. London
- Gijzen A (1960) Liste des mammifères ayant figuré ou figurant dans les collections du Jardin Zoologique de la Société Royale de Zoologie d'Anvers. *Bulletins de la Société Royale de Zoologie d'Anvers* 16:1-18
- Haeßlin J, Nogge G (1985) *Des Kölner Zoo*. Cologne
- Hagenbeck C (1908) *Von Tieren und Menschen, Erlebnisse und Erfahrungen*. Berlin-Charlottenburg
- Hagenbeck C (1914) [1908] *Von Tieren und Menschen, Erlebnisse und Erfahrungen*. Berlin-Charlottenburg, Vita (Geschenk-Ausgabe), 449 pp
- Hagenbeck D (1966) Report on the hand-rearing of an Indian rhinoceros *Rhinoceros unicornis* at Hamburg Zoo. *International Zoo Yearbook* 6:82-87
- Hall-Martin AJ (1984) Kenya's black rhinos in Addo, South Africa. *African Elephant & Rhino Group Newsletter* 3:11, 1 fig
- Hall-Martin AJ, Penzhorn BL (1977) Behaviour and recruitment of translocated black rhinoceros *Diceros bicornis*. *Koedoe* 20:147-162
- Hallstrom E (1967) Notes on breeding the black rhinoceros *Diceros bicornis* at Sydney Zoo. *International Zoo Yearbook* 7:165
- Hamerton AE (1939) Review of mortality rates and

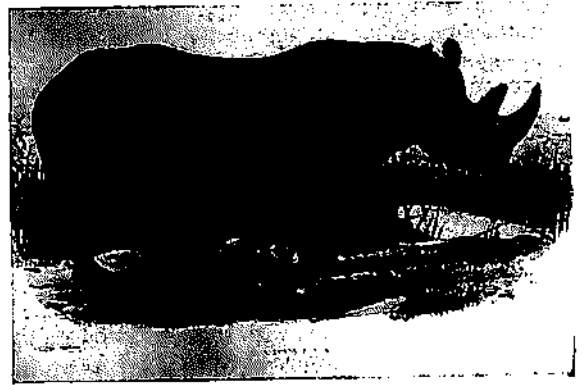


Fig. 163. Male black rhinoceros in London, 1868-1894, painted by J. Wolf.

- report on the deaths occurring in the Society's gardens during the year 1938. *Proceedings of the Zoological Society of London (B)* 109:281-327
- Hamerton AE (1943) Report on the deaths occurring in the Society's gardens during the year 1941. *Proceedings of the Zoological Society of London (B)* 112:120-136
- Hanscom T (1987) Black rhino born at the San Diego Wild Animal Park. *AAZPA Newsletter* 28(9):22
- Hayashi Z (1963) Indian rhinoceros 'King of Tama' in Tama zoological park. [In Japanese] *Animals and Zoo*, Tokyo 11(2):6-7, 1 fig
- Hays HR (1967) Notes on breeding black rhinoceroses *Diceros bicornis* at Pittsburgh Zoo. *International Zoo Yearbook* 7:164-165
- Heber R (1827) *Narrative of a journey through the upper provinces of India, from Calcutta to Bombay, 1824-1825*, 3 volumes. London
- Heck L [1896] *Das Tierreich: Allgemeine Einleitung: Säugetiere*. Neudamm
- Heck L [1899] *Lebende Bilder aus dem Reiche der Tiere: Augenblicksaufnahmen nach dem lebenden Tierbestände des Berliner Zoologischen Gartens*. Berlin
- Heck L (1930) *Aus der Wildnis in den Zoo: auf Tierfang in Ostafrika*. Berlin
- Heckly L (1963) Nouveaux locataires au Parc Zoologique. *Le Figaro* 28 Mai 1963, p 4
- Hediger H [1955] *Neue exotische Freunde im Zoo*. Basel
- Hediger H (1970) Ein Nashorn mit Dürer-Hornlein. *Zoologische Garten (NF)* 39:101-106, figs 1-6
- Heikamp D (1980) Seltene Nashörner in Martin Sperlich's Nashorn-galerie und anderswo. In: *Festschrift für Martin Sperlich*, pp 301-325, figs 1-26. Tübingen
- Hernandez M (1994) Rinoceronto blanco *Ceratotherium simum* s. La Voz del Zoologico, Guadalajara 6(1):1, 1 fig
- Herrmann VM, Miller RE (1991) Total parenteral nutrition in a premature rhinoceros calf. *Nutrition in Clinical Practice* 6:193-196, figs 1-5
- Hill CWO (1958) Abnormal site of horn-growth in *Rhinoceros unicornis* Linn. *Journal of the Bombay Natural History Society* 55(3):553-554, 1 fig
- Hoadley MC, Svanberg I (1991) Hunting rhinoceros in Java: Johan Arnold Stützer and his journal 1786-1787. *Svenska Linné-Sällskapets Arsskrift*, Upsala 1990/91:91-143, 7 figs



## References

- Hodgson BH (1825) Remarks on the procreation of the rhinoceros. *Orient Mag* 3(5):155-156
- Hodgson BH (1826) Remarks on the rate of growth and habits of the Rhinoceros Indicus. *The Asiatic Journal* 22:193-197
- Hodgson BH (1834) On the mammals of Nepal. *Proceedings of the Zoological Society of London* 1834:95-104
- Hood FH (1869) The Sumatran rhinoceros. *Oriental Sporting Magazine* 2(15):167-169, 1 pl
- Hopwood AT (1939) The subspecies of the black rhinoceros, *Diceros bicornis* (Linnaeus), defined by the proportions of the skull. *Journal of the Linnean Society of London, Zoology* 40:447-457, pls 10-11
- Hornaday WT (1918) *Popular Official Guide to the New York Zoological Park*. New York
- Horsfield T (1823) *Zoological researches in Java, and the neighbouring islands*. London [Part 6 published in June 1823]
- Hosoda T (1991) Tama's Indian rhinoceros Lanny falls sick [In Japanese]. *Animals and Zoo* [?] July 1991:246-249
- Hubback TR (1939) The two-horned Asiatic rhinoceros (*Dicerorhinus sumatrensis*). *Journal of the Bombay Natural History Society* 40(4):594-617, pls 1-8
- Hufnagel E (1873) Rhinoceros in Europa ausgestellt. *Zoologische Garten* 14(5):197-198
- Iles G (1960) *At home in the Zoo*. London
- Jacobaeus O (1696) *Museum Regium. Hafniae*
- Jacquemont V (1841) *Voyage dans l'Inde pendant les années 1828 à 1832: Journal*, vol 1. Paris
- Jamrach W (1875) On a new species of Indian rhinoceros. [3 pp, no place, no publisher]
- Jardine W (1843) *The Naturalist's Library*, vol 13: *Pachydermes*. Edinburgh
- Jarofke D (1983) Milchzusammensetzung beim Spitzmaulnashorn (*Diceros bicornis*). *Bongo, Berlin* 7:111-112
- Jarvis C (1966) Zoos in China. *Animals* 8(17):450-455
- Jennison G (1928) *Noah's Cargo: Some Curious Chapters of Natural History*. London
- Jennison G (1937) *Animals for Show and Pleasure in Ancient Rome*. Manchester
- Jha AK, Singh JN, Sinha PR, Quasin A (1987) Rhinoceros: Sanjay Gandhi Biological Park, Patna. *Zoos' Print, Coimbatore* 2(9):5-6
- Johnston N (1990) Sumatran rhino. *AAZPA Communique*, February 1990:4
- Jones DM (1979) The husbandry and veterinary care of captive rhinoceroses. *International Zoo Yearbook* 19:239-252
- Jones M (1991) "And then there were none": saving the rhino. *Zoonooz, San Diego* 64(5):6-12, 8 figs
- Jones M (1993) Longevity of ungulates in captivity. *International Zoo Yearbook* 32:159-169
- Jorgensen B (1986) A visit by Douwe Mout's rhinoceros to Copenhagen. *Zoologische Garten (NF)* 56(4/5):385-386, 1 fig
- Joseph S (1989) The rhino: final episode or new chapter? *Zoonooz, San Diego* 62(4):4-9
- Kabokoff B (1991) White rhinoceros born at Memphis Zoo. *AAZPA Communique* May 1991:18
- Kagan D (1984) Whoopie ti-yi-yay, get along li'l rhino. *Science* 1984 ?
- Kanpur Zoo (1993) *First Indian National Studbook for Indian Rhinoceros, Rhinoceros unicornis*, November, 1993, by the Allen Forest Zoo, Kanpur with technical assistance from Zoo Outreach Organisation. Coimbatore ZOO
- Kearney Y, Vyvyan J (1965) *Rufus the Rhino*. London
- Keeling C (1983) *The Life and Death of Belle Vue*. Guildford
- Keeling C (1984) *Where the Lion Trod*. Guildford
- Keeling C (1985) *Where the Crane Danced*. Guildford
- Keeling C (1993) *Where the Macaw Preened*. Guildford
- Keeling C (1994) Clues from a skull. *The Bartlett Society, Journal* 5:8-10, 1 fig
- Keeling C (1995a) *Where the Penguin Plunged*. Guildford
- Keeling C (1995b) *Wonderful Year*. Guildford
- Keeling C (1997) *Manders' Royal Menagerie*. The Bartlett Society, Newsletter March 1997:[4-5]
- Kelham M (1956) Report from Regent's Park. *Zoo Life, London* 10(4):121-126, 5 figs
- Keyser M (1976) Komt dat zien! De Amsterdamse Kermis in de Negentiende Eeuw. Amsterdam
- Khan Mir Gowher A, Choudhury BC (1987) Breeding of Indian rhinoceros (*Rhinoceros unicornis*) in Nehru Zoological Park, Hyderabad. *Zoos' Print, Coimbatore* 2(4/5):13-15, 1 fig
- Kiechel S (1866) *Die Reisen, aus drei Handschriften herausgegeben von Dr. K.D. Haszler*. Stuttgart
- Kinloch AAA (1892) *Large game shooting in Thibet, the Himalayas, Northern & Central India*. London
- Kinsey FM (1990) Denver zoo reports significant birth. *AAZPA Communique*, January 1990:20
- Klein IT (1760) *Natürliche Ordnung und vermehrte Historie der vierfüssigen Thiere*. Danzig
- Klimek K (1971) Black rhino born. *International Zoo News* 18(1):17
- Klöß H-G (1959) Das neue Panzernashorn im Zoologischen Garten Berlin. *Freunde des Kölner Zoo* 2(3):25, 2 figs
- Klöß H-G (1969) Von der Menagerie zum Tierparadis: 125 Jahre Zoo Berlin. Berlin
- Klöß H-G (1976) Births of Indian rhinoceros in the West Berlin Zoo. *International Zoo News* 23(4):42
- Klöß H-G (1987) Sumatra-Nashörner. *Bongo, Berlin* 12:23-28, 4 figs
- Klöß H-G, Frädrich H (1970) Ein Überblick über die in Zoologischen Gärten gehaltenen Afrikanischen Nashörner. *Zoologische Garten (NF)* 38:227-245, figs 1-5
- Klöß H-G, Frädrich H (1971) Veränderungen im Bestand Afrikanischen Nashörner in zoologischen Gärten. *Zoologische Garten (NF)* 41(1/2):49-55
- Klöß H-G, Frese R (1977) Zuchtbücher für Breitmaul- (*Ceratotherium simum*) und Spitzmaulnashörner (*Diceros bicornis*). 31.12.1975. *Bongo, Berlin* 1:70, i-viii
- Klöß H-G, Frese R (1978) Population trends in African rhinoceroses *Diceros bicornis* and *Ceratotherium simum* living in zoos and safariparks. *International Zoo Yearbook* 18:231-234, figs 1-3
- Klöß H-G, Frese R (1981a) *International studbook of the black rhinoceros*. Berlin, Zoologischer Garten
- Klöß H-G, Frese R (1981b) *International studbook of the square-lipped rhinoceros*. Berlin, Zoologischer Garten
- Klöß H-G, Frese R (1983) *International studbook of African rhinoceroses, No. 2*. Berlin, Zoologischer Garten
- Klöß H-G, Frese R (1987) *International studbook of*

- African rhinoceroses, No. 3. Berlin, Zoologischer Garten
- Klös H-G, Frese R (1991) International studbook of African rhinoceroses (*Diceros bicornis*/Ceratotherium simum), No. 4. Berlin, Zoologischer Garten
- Klös H-G, Frese R (1993) International studbook of African rhinoceroses (*Diceros bicornis*/Ceratotherium simum), No. 5. Berlin, Zoologischer Garten
- Klös H-G, Frädrieh H, Klös U (1994) Die Arche Noah an der Spree: 150 Jahre Zoologischer Garten Berlin. Eine tiergärtnerische Kulturgeschichte von 1884-1994. Berlin
- Klös H-G, Klös U (1990) Der Berliner Zoo im Spiegel seiner Bauten 1841-1989: eine baugeschichtliche und denkmalpflegerische Dokumentation über den Zoologischen Garten Berlin. Berlin
- Knauer FK (1914) Der Zoologische Garten: Entwicklungsgang, Anlage und Betrieb unserer Tiergärten und deren Erziehliche, Belehrende und Wissenschaftlichen Aufgaben. Leipzig
- Knighton W (1833/1834) The Private Life of an Eastern King together with Elihu Jan's Story or the Private Life of an Eastern Queen. London
- Knottnerus-Meyer T (1902) Der Zoologische Garten zu Antwerpen. Zoologische Garten 43(6):177-187
- Knottnerus-Meyer T (1905) Neues vom Zoologischen Garten zu Berlin. Zoologische Garten 46(4):109-115
- Köhle A (1981) Aus der Geschichte des Kölner Zoo: bemerkenswerte Säugetiere des Tierbestandes. Zeitschrift des Kölner Zoo 24(3):103-106, 5 figs
- Kourist W (1969) Historische Zootier-Fotos. Zoologische Beiträge (NF) 15(2/3):465-473, figs 1-10
- Kourist W (1970) Die ersten einhornigen Nashörner (*Rhinoceros sondaicus* Desmarest, 1822 und *Rhinoceros unicornis* L., 1758) der großen europäischen zoologischen Gärten in der Malerei des 19. Jahrhunderts. Zoologische Beiträge (NF) 16(1):141-154, figs 1-13
- Kourist W (1973) Die ersten zweihörnigen Nashörner, die Tapire und Wale in den Zoologischen Gärten und anderen Tiersammlungen. Zoologische Beiträge (NF) 19(1):137-150, figs 1-8
- Kourist W (1974) Nachtrag zu Teil I und Teil II von 'Frühe Haltung von Großsäugetieren'. Zoologische Beiträge (NF) 20(3):543-546, figs 1-3
- Kourist W (1976) 400 Jahre Zoo: im Spiegel der Sammlung. Cologne
- Krauß F (1851) Die Säugethiere nach Familien und Gattungen. Stuttgart
- Kreag KK (1966) Hand-rearing a black rhinoceros *Diceros bicornis* at Detroit Zoo. International Zoo Yearbook 6:87-88
- Krishne Gowda CD (1967) Breeding the black rhinoceros *Diceros bicornis* at Mysore Zoo. International Zoo Yearbook 7:163-164
- Krishne Gowda CD (1975) Plans for breedings colonies of large mammals in India. In: Martin RD (ed) Breeding Endangered Species in Captivity, pp 309-313, figs 1-2. London
- Krishne Gowda CD (1985) Breeding large mammals in captivity. Zoos' Print, Coimbatore 1(3):5-7, 6 figs
- Krishne Gowda CD (1990) Breeding and management of African black rhinoceros at Mysore Zoo. Zoos' Print, Coimbatore 5(3):22-23
- Krumbiegel I (1960) Die asiatischen Nashörner (*Dicerorhinus Gloger* und *Rhinoceros Linné*). Säugetierkundliche Mitteilungen 8:12-20, figs 1-3
- Krumbiegel I (1965) Das Kopenhagener Sumatranashorn, *Didermoceros sumatrensis* (Fischer, 1814). Säugetierkundliche Mitteilungen 13(3):97-100, figs 1-6
- Kuckelkorn B, Dathe HH (1990) Trächtigkeitsdiagnose beim Panzernashorn (*Rhinoceros unicornis*) anhand von Progesteronbestimmungen im Speichel. Zoologische Garten (NF) 60(6):333-340, figs 1-3
- Küng K (1978) The preparation of an Indian rhinoceros in the Museum of Natural History in Berne (Switzerland). Jahrbuch des Naturhistorischen Museum der Stadt Bern 6:125-131, figs 1-6
- Lacroix J-B (1977) L'approvisionnement des ménageries et les transport d'animaux sauvages par la Compagnie des Indes au XVIIIe siècle. Revue Française d'Histoire d'Outre-Mer 65:164-170
- Lamare-Picquot F (1835) Réponse pour servir de réfutation aux opinions et à de M. Constant Dumeril, sur mon memoire concernant les Ophidiens ..., suivie d'une relation de chasse dans les fles des bouches du Gange. Paris
- Lang EM (1957) Geburt eines Panzernashorns, *Rhinoceros unicornis*, im Zoologischen Garten Basel. Säugetierkundliche Mitteilungen 5(2):69-70, 1 fig
- Lang EM (1958) Panzernashörner im Tiergarten. Zolli, Basel No 1
- Lang EM (1959) Ein Sumatra-Nashorn im Basler Zoo. Säugetierkundliche Mitteilungen 7(4):177, 1 fig
- Lang EM (1961) Beobachtungen am Indischen Panzernashorn (*Rhinoceros unicornis*). Zoologische Garten (NF) 25(6):369-409, figs 1-24
- Lang EM (1964) Wieder ein junges Panzernashorn. Zolli, Basel No 13:4-5, 1 fig
- Lang EM (1965) Arjun. Zolli, Basel No 15:11-12, 2 figs
- Lang EM (1966) Krankheit und Tod des Panzernashornbullen Gadadhar. Proceedings of the International Symposium of Zoo animal diseases 8:301-307
- Lang EM (1967) Einige biologische Daten vom Panzernashorn (*Rhinoceros unicornis*). Revue Suisse de Zoologie 74(3):603-607
- Lang EM (1975) The Indian rhino in captivity. In: Martin RD (ed) Breeding Endangered Species in Captivity, pp 293-302, figs 1-4. London
- Lang EM (1994) Mit Tieren Unterwegs: aus dem Reisebuch eines Zoodirektors. Birsfelden
- Lang EM, Leutenegger M, Tobler K (1977) Indian rhinoceros *Rhinoceros unicornis* births in captivity. International Zoo Yearbook 17:237-238
- Lappa K (1991) Black rhino born at Brookfield Zoo. AAZPA Communique May 1991:18
- Laufer B (1914) History of the rhinoceros. In: Laufer, Chinese Clay Figures, Part I, pp 73-173. Publications, Field Museum of Natural History, Anthropological Series 13(2):73-315
- Leifer C (1989) Rhino birth first at Lincoln Park Zoo. AAZPA Newsletter September 1989:19, 1 fig
- Lindemann H (1982) African rhinoceroses in captivity. University of Copenhagen, unpublished thesis
- Lindemann H (1984) Demographic survey of the black rhinoceros *Diceros bicornis* in captivity. International Zoo Yearbook 23:225-233, figs 1-7
- Loch CW (1937) *Rhinoceros sondaicus*, the Javan or lesser one-horned rhinoceros and its geographical distribution. Journal of the Malayan Branch of the Royal Asiatic Society 15(2):130-149, pls 3-4
- Loisel G (1912) Histoire des ménageries de l'anti-

- quité à nos jours. 3 volumes. Paris
- Lombardi A (1973) Safari on Lake Garda, Italy. *International Zoo News* 20(5):184-185
- Losty JP (1990) Calcutta, City of Palaces: A Survey of the City in the Days of the East India Company 1690-1858. London
- Ludwig KS, Müller E (1965) Zur Histochemie der Plazenta des Panzernashorns (*Rhinoceros unicornis* L.). *Verhandlungen der Anatomischen Gesellschaft, Ergänzungsheft Anatomischer Anzeiger* 115:155-159, figs 1-3
- Ludwig KS, Villiger W (1965) Zur Ultrastruktur der Blattotheneptithelien in der Plazenta des Indischen Panzernashorns (*Rhinoceros unicornis* L.). *Acta anatomica* 62:593-605, figs 1-10
- Lukin A (1883) Zoologischer Garten in St Petersburg: Verzeichnis des Tierbestandes am 1 September 1882. *Zoologische Garten* 24:279-281
- Lydekker R (1909) Oriental big game notes. *Field* 113:923
- McCulloch B, Jonathan J, Dunnett SC (1969) Further report on the development of Saanane Island, and its role in wildlife conservation in East Africa. *International Zoo Yearbook* 9:139-142
- McLaughlin E (1990) Fort Worth zoological association receives greater one-horned rhino pair. *AAZPA Communiqué*, August 1990:19, 1 fig
- Mackler SF, Buechner HK (1978) Play behavior and mother-young relationships in captive Indian rhinoceroses (*Rhinoceros unicornis*). *Zoologische Garten (NF)* 48(2/3):177-186, figs 1-3
- Maes J [1910] *Le Jardin Zoologique d'Anvers: Album-guide illustré*. Antwerp
- Manan S, Sutarman, Sudhono (1987) On the efforts to breed the Sumatran rhino (*Dicerorhinus sumatrensis*) in captivity in Indonesia. *Rimba Indonesia* 21(1):48-55
- Manton VJA (1983) Haltung des südlichen Breitmaulnashorns (*Ceratotherium simum simum*) in Whipnade. Bongo, Berlin 7:33-42, 5 figs.
- Martens G von (1850) Die Menagerien in Stuttgart. *Jahreshefte des Vereins für vaterländische Naturkunde in Württemberg* 6:85-123
- Martin EB (1993) The present-day trade routes and markets for rhinoceros products. In: Ryder 1993, pp 1-9
- Martin EB, Martin C (1982) Run Rhino Run. London
- Marx E, Koch A (1910) Neues aus der Schausammlung: das Indische Nashorn. Bericht der Senckenbergischen Naturforschenden Gesellschaft in Frankfurt am Main 41(3):161-171, figs 1-7
- Mayer C (1922) Trapping Wild Animals in Malay Jungles. London
- Meckvichai C (1987) On the status of the Sumatran rhino in captivity in Thailand. *Rimba Indonesia* 21(1):57-58
- Medway, Lord (1972) Subur's sister? *Animals* 14(3):141, 2 figs
- Meinertz T (1972a) Eine topographische Untersuchung über die Facialismuskeln beim Nashorn, *Diceros bicornis* (L.). *Gegenbauers Morphologisches Jahrbuch* 118(2):206-227, figs 1-17
- Meinertz T (1972b) Eine Untersuchung über die Niere des spitzschnauzigen Nashorns, *Diceros bicornis* L., sowie Bemerkungen über die Niere einzelner anderer Säugetiere. *Gegenbauers Morphologisches Jahrbuch* 117(4):531-542, figs 1-13
- Meinertz T (1974) Eine Untersuchung über die Niere des Sumatranashorns (*Dicerorhinus sumatrensis* Cuv.). *Gegenbauers Morphologisches Jahrbuch* 120:697-735, figs 1-29
- Mentzel OF [1787] (1944) A Geographical and Topographical Description of the Cape of Good Hope, vol 3. Cape Town (Works Van Riebeeck Society, vol 25)
- Merklein JJ [1672] (1930) Reise nach Java, Vorder- und Hinter-Indien, China und Japan 1644-1653. Haag
- Merz A (1991) Rhino, at the Brink of Extinction. London
- Metzler A (1981) Indian rhino watch. *Zooncoz*, San Diego 54(1):14-15, 3 figs
- Meyer-Holzappel M (1970) Erstmalige Dressur eines Breitmaulnashorns (*Ceratotherium s. simum* [Burch]) im Schweizer Nationalzirkus Knie. *Zoologische Garten (NF)* 39:210-224, figs 1-13
- Meyer-Holzappel M (1985) Tiger als Reiter auf Pferd, Nashorn und Elefant: Analyse von Dressuren im Schweizer Nationalzirkus Knie. *Zoologische Garten (NF)* 55(5/6):301-326, figs 1-16
- Mikulica V (1986) Sozialverhalten der Breitmaulnashörner (*Ceratotherium simum*) in der Gefangenschaft. *Wiss Zeitschrift der Humboldt-Universität zu Berlin, Math-Nat R* 35(3):296-300
- Mikulica V (1991) Social behaviour in two captive groups of white rhinoceros (*Ceratotherium simum simum* and *Ceratotherium simum cottoni*). *Zoologische Garten (NF)* 61(5/6):365-385, figs 1-7
- Miller JL (1967) An Indian zoo breeds an African rhinoceros. *Animal Kingdom* 70(1):26-27, 31, 5 figs
- Miller RE [1990?] *Veterinary Bibliography for Rhinoceroses*. Saint Louis Zoological Park, 55 pp
- Mishra PC (1994) Manual delivery of a captive Indian rhinoceros calf (*Rhinoceros unicornis*) at Sanjay Gandhi Biological Park, Patna. *Zoos' Print*, Coimbatore 9(9):1-2, 3 figs
- Mishra PC, Jha AK (1993) Breeding of rhinoceros (*Rhinoceros unicornis*) in Sanjay Gandhi Biological Park, Patna. *Zoos' Print*, Coimbatore 8(6):5
- Mitchell PC (1911) Strauß und Rhinoceros im Hagenbeck'schen Tiergarten. *Zoologische Garten* 52:219-220
- Mohr E (1957) Das Horn des Indischen Rhinoceros unicornis. *Zoologische Garten (NF)* 23(1/3):37-45, figs 1-8
- Moiser C (1990) Advertisement-1838. *Journal of the Zoological Society of Greater Manchester* 11(40):14-15
- Moiser C (1994) Wombwell's Menagerie. *The Bartlett Society, Journal* 5:30-32
- Müller CC (1987) Sumatranashörner, *Dicerorhinus sumatrensis* (Fischer, 1814), in Malakka. *Zoologische Garten (NF)* 58(5/6):411-413, figs 1-2
- Murray M (1956) *Circus! From Rome to Ringling*. New York
- Nandi SH, Kumar Deb S (1972) Horn cancer in rhinoceros. *Indian Veterinary Journal* 49(9):881-882
- Nardelli F (1985) The Sumatran rhinoceros project. *Help Newsletter, Friends of Howletts and Port Lympne* 7:4-8
- Nardelli F (1986) The Sumatran rhino project. *Help Newsletter, Friends of Howletts and Port Lympne* 8:20-23
- Nardelli F (1987a) The conservation of the Sumatran rhinoceros (*Dicerorhinus sumatrensis*): a situation



Fig. 164. White rhinoceros at Circus Siemoneit-Barum, Einbeck in 1993.

- report and proposal for future directions. *Rimba Indonesia* 21(1):31-37
- Nardelli F (1987b) The conservation of the Javan rhinoceros (*Rhinoceros sondaicus* Desm.), a proposal. *Rimba Indonesia* 21(1):64-66
- Nardelli F (1987c) "So near and yet so far ...": a report on the Sumatran rhinoceros captive breeding and conservation operation. *Help Newsletter, Friends of Howletts and Port Lympne* 9:38-42, 1 fig
- Neugebauer W (1993) Die Wilhelma, ein Paradies in der Stadt. Stuttgart
- Neuschulz N (1988) Noch ein Spitzmaulnashorn mit drei Hörnern. *Felis* 6:86-88, figs 1-2
- Neuschulz N, Puschmann W (1986) Verlust und Neubildung des Vorderhornes beim Spitzmaulnashorn (*Diceros bicornis*). *Felis* 4:51-55, figs 1-4 (on p 47)
- Newman E (1872) Arrival of a Sumatran rhinoceros at the Zoological Gardens. *Zoologist* (2)7:3057-3060
- Nieuwendijk JG (1970) Zoo was Artis - zo is Artis. Amsterdam
- Noack Th (1886) Über das zottelohrige Nashorn (*Rhinoceros lasiotis*). *Zoologische Garten* 27:138-144, 1 fig
- Nieuwendijk JG (1889) Beiträge zur Kenntnis der Säugethierfauna von Süd- und Südwest-Afrika. *Zoologische Jahrbücher, Abt Systematik* 4:94-261, pls 1-4
- Nogge G (1987) Jahresbericht 1986 der Aktiengesellschaft Zoologischer Garten Köln. *Zeitschrift des Kölner Zoo* 30(1):3-26
- Noll FC (1873) Die Rhinoceros-Arten. *Zoologische Garten* 14:47-55, 81-87, 138-144, 5 figs
- Noll FC (1889) Die zoologischen Gärten in Kalkutta und Bombay. *Zoologische Garten* 30:62-63
- Ochs A (1995) International Studbook for African Rhinoceroses, 6th edn: *Ceratotherium simum*, 30.11.1995. Berlin, Zoologischer Garten
- Ochs A (1997) International Studbook for African Rhinoceroses, 7th edn: *Ceratotherium simum*, 31.12.1996. Berlin, Zoologischer Garten
- O'Connor SM (1986) Activity cycles of the southern white rhinoceros *Ceratotherium s. simum* in captivity: implications for management. *International Zoo Yearbook* 24/25:297-303
- O'Hara GM (1907) Trapping of rhinoceros in the Dindings, Straits Settlements. *Indian Forester* 33:383-388
- Opperman J (1994) Tod und Wiedergeburt. Über das Schicksal einiger Berliner Zootiere. Bongo, Berlin 24:51-84, 24 figs
- O'Ryan C, Flamand JRB, Harley EH (1994) Mitochondrial DNA variation in black rhinoceros (*Diceros bicornis*): conservation management implications. *Zoo Biology* 8(2):495-500
- Owen R (1862) On the anatomy of the Indian rhinoceros (*Rh. unicornis*, L.). *Transactions of the Zoological Society of London* 42(2):31-58, pls 11-22
- Owen RS (1894) The Life of Richard Owen, 2 volumes. London
- Parsons J (1743) A letter containing the natural history of the rhinoceros. *Philosophical Transactions of the Royal Society* 42(470):523-541, pls 1-3
- Pasteur JD (1793) *Beknopte Natuurlijke Historie der Zoogende Dieren*, vol 1. Leiden

- Pearson H, Gibbs C, Wright AI (1967) Surgical treatment of a case of rectal prolapse in a young African rhinoceros (*Diceros bicornis*). *Veterinary Record* 80:519
- Peel CVA (1903) *The Zoological Gardens of Europe: Their History and Chief Features*. London
- Percival G, Tomlinson K, Barnaby D (1989) *The Wombwell Menagerie Log Book*. Manchester
- Petis de la Croix F (1723) *Histoire de Timur-Bec*, vol 3. Delft
- Petzsch H (1935) Das erste Indische Nashorn in Deutschland. *Aus der Heimat*, 3(2):50-53, figs 1-5
- Pitman D (1991) Rhinos: past, present - and future? Harare
- Player IC (1972) *The White Rhino Saga*. London
- Pocock RI (1912) Death of two rhinoceroses; measurements of Indian rhinoceros; some characters of rhinoceroses. *Field* 119:143, 5 figs
- Potter D (1994) Update on the current situation of rhinos in Natal. In: Penzhorn BL, Kriek NJR (eds) *Proceedings of a Symposium on Rhinos as Game Ranch Animals*, Onderstepoort, Republic of South Africa, 9-10 September 1994, pp 25-30
- Prasetyo L, Noordin N (1993) Sumatran rhino (*Dicerorhinus sumatrensis*) captive propagation in relation to its conservation. In: Ryder 1993, pp 274-276
- Prins HHT (1993) Geographic variation in skulls of the nearly extinct Small Black rhinoceros *Diceros bicornis michaeli* in northern Tanzania. *Zeitschrift für Säugetierkunde* 55:260-269
- Puschmann W (1987) Über das Hornwachstum beim Spitzmaulnashorn (*Diceros bicornis*). *Felis* 5:60-61, figs 1-2
- Puschmann W, Schröpel M (1988) Erneuter Hornverlust bei einem Spitzmaulnashorn. *Felis* 6:89-92, figs 1-4
- Rauwolf L [1582] (1738) A collection of Curious Travels and Voyages Containing Dr. Leonhart Rauwolf's Journey into the Eastern Countries, vol 2. Ray J (ed). London
- Rawlins CGC (1979) The breeding of white rhinos in captivity: a comparative survey. *Zoologische Garten (NF)* 49(1):1-7, fig 1
- Rawson J (1977) *Animals in Art*. London
- Raye JB (1935) 'Notitie van het merkwaardigste meyn bekend' 1732-1772, naar het oorspronkelijke dagboek medegedeeld. Amsterdam
- Redeker G (1982) Ik ben Sai Taro. *Artis, Amsterdam* 27(2):152-153, 1 fig
- Reid J (1985) Bring 'em back alive. *Texas Monthly*, March 1985 [6 pages]
- Reinhold R (1984) Black rhinos find home on the range. *New York Times* 13 November 1984
- Reuther RT (1973) Rhinoceros data. *AAZPA Newsletter* 13(4):5-6
- Reynolds RJ (1961a) Asian rhinos in captivity. *International Zoo Yearbook* 2:17-42
- Reynolds RJ (1961b) White rhinos in captivity. *International Zoo Yearbook* 2:42-43
- Reynolds RJ (1961c) Javan rhino in Berlin Zoo. *International Zoo News* 8(3):76-77
- Reynolds RJ (1962a) Rangoon, Burma. *International Zoo News* 9(2):54
- Reynolds RJ (1962b) Death of oldest Indian rhinos. *International Zoo News* 9(4):99
- Reynolds RJ (1962c) White rhinos arrive in the USA. *International Zoo News* 9(5):126
- Reynolds RJ (1963) The black rhinoceros *Diceros bicornis* in captivity. *International Zoo Yearbook* 4:98-113
- Reynolds RJ (1967) Some photographs of rhinos exhibited by American circuses between 1855 and 1926. *Zoologische Garten (NF)* 34(6):279-292, figs 1-5
- Reynolds RJ (1968) Circus rhinos. *Bandwagon* 12(6):4-13, figs 1-14
- Reynolds RJ (1970) Circus rhinos, part II. *Bandwagon* 14(6):4-13, figs 1-19
- Reynolds RJ (1982) Bobby the rhinoceros ends lengthy rhino-less run under RBBB tent. *The White Tops* 55(2):23-24, 4 figs
- Reynolds RJ (1993) Ringling Bros. 1913: some observations and corrections. *Bandwagon*, July/August 1993:27-29
- Richard XM, Zainuddin ZZ, Vidyadaran MK, Tajuddin AM (1990) Some aspects on the behaviour of the Sumatran rhinoceros (*Dicerorhinus sumatrensis*). *Proceedings 2nd Congress Vet Assoc Malaysia*, 1990:118-120, 3 figs
- Ridley HN (1901) The Sumatran rhinoceros. *Journal of the Straits Branch of the Royal Asiatic Society* 35:105-106
- Ridley HN (1906) The menagerie at the Botanic Gardens. *Journal of the Straits Branch of the Royal Asiatic Society* 46:133-194
- Rieches R (1993) Rhinoceros breeding at San Diego Wild Animal Park. In: Ryder 1993, pp 296-298
- Ritvo H (1990) [1987] *The Animal Estate: The English and Other Creatures in the Victorian Age*. Penguin Books
- Rix CE (1978) *Royal Zoological Society of South Australia 1878-1978*. Adelaide
- Rohr W (1959) Sorgen um Nepals Einhörner. *Orion* 14:955-959, 8 figs
- Rookmaaker LC (1973a) Breeding the rhinoceros in zoological gardens. *AAZPA Newsletter* 14(3):5-8
- Rookmaaker LC (1973b) Captive rhinoceroses in Europe from 1500 until 1810. *Bijdragen tot de Dierkunde, Amsterdam* 43(1):39-63, figs 1-13
- Rookmaaker LC (1976) An early engraving of the black rhinoceros (*Diceros bicornis* (L.)) made by Jan Wandelaar. *Biological Journal of the Linnean Society* 8:87-90, pls 1-2
- Rookmaaker LC (1977) The identity of the one-horned rhinoceros in Berlin 1874-1884. *International Zoo News* 24(2):15
- Rookmaaker LC (1978a) De neushoorn van 1741. *Ons Amsterdam* 30(1):16-17, 3 figs
- Rookmaaker LC (1978b) Two collections of rhinoceros plates compiled by James Douglas and James Parsons in the eighteenth century. *Journal of the Society for the Bibliography of Natural History, London* 9(1):17-38, figs 1-7
- Rookmaaker LC (1979) The first birth in captivity of an Indian rhinoceros (*Rhinoceros unicornis*): Kathmandu, May 1824. *Zoologische Garten (NF)* 49(1):75-77, fig 1
- Rookmaaker LC (1981) Early rhinoceros systematics. In: Wheeler A, Price JH, *History in the Service of Systematics*, pp 111-118. London
- Rookmaaker LC (1982) A story of horns: early views on rhinoceros classification. *Zoonooz, San Diego* 55(4):4-10, 16 figs

- Rookmaaker LC (1983a) Bibliography of the Rhinoceros: An Analysis of the Literature on the Recent Rhinoceroses in Culture, History and Biology. Rotterdam
- Rookmaaker LC (1983b) Jamrachs Rhinoceros. Bongo, Berlin 7:43-50, 1 fig
- Rookmaaker LC (1983c) Histoire du rhinocéros de Versailles (1770-1793). Revue Histoire des Sciences 36(3/4):307-318, figs 1-5
- Rookmaaker LC (1983d) Die Unterarten des Spitzmaulnashorns (*Diceros bicornis*) und ihre Zucht in Menachenobhut. In: Klös and Frese 1983, pp 41-45
- Rookmaaker LC (1984a) The taxonomic history of the recent forms of Sumatran rhinoceros (*Dicerorhinus sumatrensis*). Journal of the Malaysian Branch of the Royal Asiatic Society 57(1):12-25, figs 1-7
- Rookmaaker LC (1984b) The former distribution of the Indian rhinoceros (*Rhinoceros unicornis*) in India and Pakistan. Journal of the Bombay Natural History Society 80(3):555-563
- Rookmaaker LC (1985) De iconografie van de tweehoornige neushoorn van 1500 tot 1800. In: Kruythoof C (ed), Zoom op Zoo: Antwerp Zoo Focusing on Arts and Sciences, pp 277-303. Antwerp
- Rookmaaker LC (1988) The Indochinese rhinoceros. Oryx 22(4):241
- Rookmaaker LC (1993) The mysterious 'Liverpool Rhinoceros'. Zoologische Garten (NF) 63(4):246-258, figs 1-7
- Rookmaaker LC (1995) Subspecies and ecotypes in the black rhinoceros. Pachyderm, Nairobi 20:39-40
- Rookmaaker LC (1997) Evidence of a rhinoceros at Hay-Market in 1737. The Bartlett Society Newsletter July 1997
- Rookmaaker LC, Keeling C (1991) Evidence on a Javan rhinoceros alive in Manchester ca. 1870. The Bartlett Society Journal 2:16-17
- Rookmaaker LC, Reynolds RJ (1985) Additional data on rhinoceroses in captivity. Zoologische Garten (NF) 55(2/3):129-158, figs 1-9
- Rost A (1993) Rhinoceros and the Jacksonville Zoo. Kitabu, Jacksonville, Fall 1993, p 9
- Rousselet L (1877) L'Inde des Rajahs: Voyage dans l'Inde Centrale et dans les Presidences de Bombay et du Bengale. Paris
- Rüedi D (1985) Das 20. Zolli-Panzernashorn gestorben. Zolli, Basel 54:13, 2 figs
- Rüedi D (1989) Panzernashorn No 21. Zolli, Basel 62:7-9
- Rüedi D (1990) T wie Tanaya. Zolli, Basel 64:4-5, 2 figs
- Rüedi D (1991) Zolli-Panzernashorn Nr. 22 und Nr. 23! Zolli, Basel 66:12-14, 3 figs
- Rümpler G (1991a) Haltung und Zucht von Breitmaulnashörnern (*Ceratotherium simum simum*) im Allwetterzoo Münster. Zeitschrift des Kölner Zoo 34(3):91-102, figs 1-14
- Rümpler G (1991b) Münster Zoo (Allwetterzoo), Germany. International Zoo News 38(2):43-44, 1 fig
- Ruhe H Jr (1970) Beobachtungen, Erfahrungen und Erkenntnisse bei der Einrichtung von Freigehegen für afrikanische Wildtiere ausserhalb des afrikanischen Kontinents. Zoologische Garten (NF) 38(5):246-262, figs 1-8
- Ruiter LC Coomans de (1957) Een terugblik (7). Blijdorp-Geluiden, Rotterdam 5(9):2-7, 8 figs
- Ryder OA (ed) (1993) Rhinoceros Biology and Conser-



Fig. 165. Bogor's Taman Safari Sumatran rhinoceros, 1995.

- vation: Proceedings of an International Conference, May 9-11, 1991, San Diego, California, USA. Zoological Society of San Diego
- Ryhiner P, Mannix D (1959) The Wildest Game. London [First edition 1958]
- Saban R (1983) La dissection au Muséum du rhinocéros de la Menagerie de Versailles en 1793, et les 'Vélins du Museum'. Comptes Rendus du 108e Congrès National des Sociétés Savantes, Grenoble, Section des Sciences, Fasc IV:33-40, figs 1-6
- Sabharwal DN (1989) Birth of rhino calves in Kanpur Zoo. Zoos' Print, Coimbatore 4(12):5-7, 1 fig
- Sacc F (1861) Le Jardin Zoologique de Marseille. Revue et Magazine de Zoologie, Pure et Appliquée (2)13(1):34-46 [German translation in Zoologische Garten 2(9):160-163]
- Sakamoto J (1989) Keeping and breeding black rhinoceros. [Japanese, English summary]. Animals and Zoo, Tokyo 1989(4):4-7, 5 figs
- Sander H (1779) Nachricht vom Rhinoceros in Versailles. Naturforscher, Halle 13:1-10
- Sanyal RB (1892) A Hand-Book of the Management of Animals in Captivity in Lower Bengal. Calcutta
- Sanyal RB (1905) Report of the Honorary Committee for the Management of the Zoological Garden, for the Year 1904-05. Calcutta
- Schafer EH (1985) The Golden Peaches of Samarkand: A Study of Tang Exotics. Berkeley
- Schaffer NE, Beehler B, Jeyendran RS, Balke B (1990) Methods of semen collection in an ambulatory greater one-horned rhinoceros (*Rhinoceros unicornis*). Zoo Biology 9:211-221, figs 1-5
- Schaller GB, Nguyen Xuan Dang, Le Dinh Thuy, Vo Thanh Son (1990) Javan rhinoceros in Vietnam. Oryx 24(2):77-80, 2 figs
- Schaller K, Pilaski J (1979) Pocken bei Breitmaulnashörnern (*Ceratotherium s. simum*) im Zoologischen Garten Münster. Zoologische Garten (NF) 49(3):169-184, figs 1-13
- Scherpner C (1983) Von Bürgern für Bürger: 125 Jahre Zoologischer Garten Frankfurt am Main. Frankfurt a.M.
- Schinz HR (1824) Naturgeschichte und Abbildungen der Säugetiere, vol 2. Zürich
- Schinz HR (1845) Systematisches Verzeichniß aller bis jetzt bekannten Säugethiere oder Synopsis Mammalium nach dem Cuvier'schen System. Solothurn
- Schlawe L (1961) Ein weibliches Sumatranashorn in

- Kopenhagen (*Didermocerus sumatrensis*). *Freunde des Kölner Zoo* 4(4):94-95, figs 1-7
- Schlawe L (1969) Die für die Zeit vom 1. August 1844 bis 31. Mai 1888 nachweisbaren Thiere im Zoologischen Garten zu Berlin. Berlin
- Schlawe L (1972) Aus der Geschichte des Hamburger Tiergartens. *Zoologische Garten (NF)* 41(3/4):168-186, figs 1-15
- Schlegel H (1872) *De Dierentuin van het Koninklijk Zoologisch Genootschap Natura Artis Magistra te Amsterdam*. Amsterdam
- Schmidt RE, Hartfiel DA (1976) Disseminated bacterial infection in an infant rhinoceros. *Journal of Zoo Animal Medicine* 7(2):15-17
- Schneider KM (1930) Bemerkungen über die von Christoph Schulz 1929 eingeführten ostafrikanischen Tiere. *Zoologische Garten (NF)* 31:19-28, figs 1-16
- Schreber JCD von (1835) *Die Säugethiere in Abbildungen nach der Natur mit Beschreibungen*, vol 6. Erlangen
- Schrevers F (1984) Alfred Ost en de zoo. *Zoo, Antwerpen* 50(1):32-35
- Schürer U (1982) Zoodom, der Nationalzoo der Dominikanischen Republik und einige Bemerkungen über die Fauna des Landes. *Zeitschrift des Kölner Zoo* 25(2):59-63, figs 1-10
- Schwarz GB (1751) *Reise in Ost-Indien*. Heilbronn
- Sclater PL (1871) Exhibition of, and remarks on, a horn of the male Indian rhinoceros (*Rhinoceros unicornis*). *Proceedings of the Zoological Society of London* 1871:8-11, figs 1-3
- Sclater PL (1872) Report on the additions to the Society's menagerie in February, 1872. *Proceedings of the Zoological Society of London* 1872:493-496, pls 23-26
- Sclater PL (1874) Arrival of a Javan rhinoceros. *Proceedings of the Zoological Society of London* 1874:182-183, pl 28
- Sclater PL (1875) Exhibition of a drawing of a supposed new rhinoceros from the terai of Bhootan. *Proceedings of the Zoological Society of London* 1875:82
- Sclater PL (1876) On the rhinoceroses now or lately living in the Society's menagerie. *Transactions of the Zoological Society of London* 9:645-660, figs 1-9, pls 95-99
- Sclater PL (1876b) Remarks upon a skin of a young rhinoceros from the Sunderbans. *Proceedings of the Zoological Society of London* 1876:751
- Sclater PL (1877) Remarks on a living specimen of *Rhinoceros sondaicus* from the Sunderbans. *Proceedings of the Zoological Society of London* 1877:269-270
- Sclater PL (1878) On additions to the menagerie. *Proceedings of the Zoological Society of London* 1878:788-791.
- Sclater PL (1879) On additions to the menagerie. *Proceedings of the Zoological Society of London* 1879:308
- Sclater PL (1880) Remarks on animals observed in the zoological gardens of Berlin, Hamburg, Amsterdam, The Hague, and Antwerp. *Proceedings of the Zoological Society of London* 1880:420
- Sclater PL (1884) On *Rhinoceros lasiotis*. *Proceedings of the Zoological Society of London* 1884:55-56
- Sclater PL (1885) On additions to the menagerie. *Proceedings of the Zoological Society of London* 1885:421
- Sclater PL (1896) On continental menageries. *Proceedings of the Zoological Society of London* 1891:326-327
- Sclater WL (1891) *Catalogue of Mammalia Preserved in the Indian Museum Calcutta*, vol 2. Calcutta
- Scott HH (1927) Neoplasm in an Indian rhinoceros. *Proceedings of the Zoological Society of London* 1927:503-510, pls 1-2
- Scott RS (1971) Rhino roundup in Nepal. *Karatasi Yenze Habari, Kingsport* 19(2):30-33, 3 figs
- Selous FC (1881) *A Hunter's Wanderings in Africa*. London
- Shima A (1989) A jet set red rhino. *Koala Club News, San Diego* 16(1):1,4-5, figs
- Shoemaker AH (1977) Two years after opening: the zoo in Columbia. *International Zoo News* 24(1):22-27, 6 figs
- Sigel WL (1881) Die Thierpflege des zoologischen Gartens in Hamburg. *Zoologische Garten (AF)* 46(9):260-272
- Singh DM, Sharma R, Bhuyan UN, Thakuria DB, Barua M, Deka H, Talukdar TC, Walker S (1992) Present status of rhinocerosus in Assam State Zoo, Guwahati. *Zoos' Print, Coimbatore* 7(8):20-21
- Skafte H (1964) *Rhino Country*. London
- Sliggers B (1982) *Het Schetsboek van Cornelis van Noorde 1731-1795: Het Leven van een Veelzijdig Haarlems Kunstenaar*. Haarlem
- Smith LJ (1970) White rhino born. *International Zoo News* 17(1):3, 1 fig
- Smith RL, Read B (1992) Management parameters affecting the reproductive potential of captive, female black rhinoceros, *Diceros bicornis*. *Zoo Biology* 11:375-383, fig 1
- Sody HJV (1959) Das Javanische Nashorn, *Rhinoceros sondaicus*, historisch und biologisch. *Zeitschrift für Säugetierkunde* 24(3/4):109-240, pls 5-8, figs 1-7
- Sonne-Hansen R (1972) Observations on the Sumatran rhino (*Dicerorhinus sumatrensis*) at Copenhagen Zoo. *Zoologische Garten (NF)* 42(5/6):296-303, figs 1-6
- Sotani K (1974) History of rhinoceroses in Japanese zoos. *Journal of the Japanese Association of Zoological Gardens and Aquariums* 16(2):44-47. [In Japanese, English summary]
- Spala P, Hradecky P (1993) Preliminary determination of nutritional requirements of the pregnant black rhinoceros (*Diceros bicornis*). In: Ryder 1993, pp 277-281
- Speiser F (1973) *Liebespiel bei Riesentieren*. Zolli, Basel 30:3-5, 7 figs
- Stöcker H (1925) Erklärung des Nashornreiters auf den Reliefs von Angkor-Vat. *Artibus Asiae* 1(2):128-130, figs 1-2
- Störk L (1977) *Die Nashörner: Verbreitungs- und Kulturgeschichtliche Materialien unter besonderer Berücksichtigung der Afrikanischen Arten und des Altägyptischen Kulturbereiches*. Hamburg
- Strahan R (1991) *Beauty and the Beasts: A History of Taronga Zoo, Western Plains Zoo and their Antecedents*. Sydney
- Street P (1953) *Whipsnade*. London
- Struyf K (1991) *Planckendael: Neushoorn Nico*. Zoo, Antwerpen 56(3):34-35





Fig. 166. Female black rhinoceros 'Kilaguni' with baby 'Saba' at Berlin Zoo on 7th February 1991.

- Struyf K (1993) Uit het plakalbum van Teja, de kleine Indische neushoorn. *Zoo, Antwerpen* 58(4):26-29, 12 figs
- Stuart S (1994) Sumatran rhino nears extinction. *IUCN Bulletin* 25(2):24
- Svitalsky M, Vahala J, Spala P (1993) Breeding experience with Northern white rhinos (*Ceratotherium simum cottoni*) at Zoo Dvur Kralove. In: Ryder 1993, pp 282-286
- Sweet JM (1965) Robert Jameson in London, 1793: excerpts from Robert Jameson's *Journal of a Voyage from Leith to London, 1793*. *Annals of Science* 19(2):81-116, pls 8-9
- Swierstra KN (1888) Systematische naamlijst van gewervelde dieren, voor de diergaarde levend ingekomen van 1 Mei 1838 tot 30 April 1888. *Bijdragen tot de Dierkunde* 1888(3):i,1-104
- Syafii M, Sutarman, Sudhano (1987) On the efforts to breed the Sumatran rhino (*Dicerorhinus sumatrensis*) in captivity in Indonesia. *Rimba Indonesia* 21(1):48-55
- Tajuddin MA, Zainuddin ZZ, Nor SM, Bakar N, Razak ZA (1988) Notes on the birth of a Sumatran rhinoceros at the Malacca Zoo, Malaysia. *Journal of Wildlife and Parks, Kuala Lumpur* 6/7:39-42
- Takagi S et al (1964) Tuberculosis in a rhinoceros. *Bulletin of University of Osaka Prefecture (B)* 15: 125-130, figs 1-5
- Tavernier JB (1676) *Les Six Voyages qu'il a Fait en Turquie, en Perse, et aux Indes*, vol 2. Paris
- Tavernier JB (1924) *Travels in India*, vol 1. New Delhi
- Taylor D (1994) *The Animals Came Out Two by Two: The Final Days of Windsor Safari Park*. London
- Thayer S (1975) One sheet. *Bandwagon*, May/June 1975:31
- Thayer S (1986) *Annals of the American Circus 1830-1847*, vol 2. Seattle
- Thevet A (1556) *Cosmographie de Levant*. Lyon
- Thomas HL (1801) An anatomical description of a male rhinoceros. *Philosophical Transactions of the Royal Society of London* 1801:145-152, pl X
- Thomas O (1901) Notes on the type specimen of *Rhinoceros lasiotis* Sclater; with remarks on the generic position of the living species of rhinoceros. *Proceedings of the Zoological Society of London* 1901(2):154-158
- Thomas WD (1982) The rhinoceros in captivity: the Los Angeles Zoo story. *Zoo View, Los Angeles* 16(3):10-13
- Thomas WD (1989) Sumatran rhino at the Los Angeles Zoo. *AAZPA Newsletter* 30(1):1, 1 fig
- Thomson JK, Priestley FW, Polding JB (1949) Enteritis of a white rhinoceros associated with *Pseudomonas pyocyanea* infection. *Veterinary Record* 61: 341
- Toit R du (1986) Re-appraisal of black rhinoceros subspecies. *Pachyderm, Nairobi* 6:5-9
- Toit R du (1987) The existing basis for subspecies classification of black and white rhinos. *Pachyderm, Nairobi* 9:3-5
- Toovey J (1979) African plains exhibit at Whipsnade Park. *International Zoo Yearbook* 19:270-274, figs 1-2, pls 55-57
- Toynbee JMC (1973) *Animals in Roman Life and Art*. London



- Tun Yin U (1967) Wild Animals of Burma. Rangoon
- Turner E (1989) Rhinos born to imported females. AAZPA Newsletter November 1989:23
- Ullrich U, Ullrich W (1968) Im Dschungel der Panzernashörner. Radebeul
- Ullrich W (1955) Bemerkenswerte Aufnahmen eines jungen Sumatra-Nashorns. Zoologische Garten (NF) 22:29-33, figs 1-2
- Ullrich W (1967) Nashornstrassen in Assam. In: Hediger H (ed) Die Strassen der Tiere, pp 56-67, figs 1-6. Braunschweig
- Ulmer FA Jr (1941) The living rhinoceros. Fauna, Philadelphia 3(1):3-11, 9 figs, 5 maps
- Ulmer FA Jr (1956) Compatible rhinos: a rare price for any zoo. America's First Zoo, Philadelphia 8(4):7, 1 fig
- Ulmer FA Jr (1958) On breeding rhinoceroses. America's First Zoo, Philadelphia 10(3):3-6, 5 figs
- Ulmer FA Jr (1959) The golden age of zoo exhibits. America's First Zoo, Philadelphia 11(1):5-9, 4 figs
- Unbegaun BO (1956) Wie hieß das Rhinoceros im Altrussischen? Veröffentlichten Ost-Europe Instituts Freien Universität Berlin 9:546-551
- Vahala J, Spala P, Svitalsky M (1993) Maintaining and breeding the Northern white rhinoceros *Ceratotherium simum cottoni* at Dvur Kralove Zoo. International Zoo Yearbook 32:16-20
- Valandikar SC, Raju R (1996) Pulmonary tuberculosis in black rhinoceros (*Diceros bicornis*) in Mysore Zoo. Zoos' Print, Coimbatore 11(3):16-17
- Varthema of Bologna, Ludovico di (1928) The Itinerary. London
- Vellayan S, Zahedi M, Jeffery J (1983) Gastric myiasis due to *Gyrostigma pavesii* Corti (Diptera: Gastrophilidae) in a white rhinoceros, *Ceratotherium simum*. Malay. Veterinary Journal 7:241-244, fig 1
- Venugopal B, Shivashanker R, Deepak JC, Lakshminarayana MS, Naik S (1994) Activity pattern of Indian rhino in Mysore Zoo. Zoos' Print, Coimbatore 9(11):9-12
- Verheij I (1992) Op Reis met Clara: De Geschiedenis van een Bezienswaardige Neushoorn. Rotterdam
- Verstraete A (1992) Strange but true: from ZSL records. Newsletter, The Bartlett Society, July 1992:6
- Vézin L (1990) Les Artistes au Jardin des Plantes. Paris
- Vigne L (1984) Some positive news from Kenya. African Elephant & Rhino Group Newsletter 3:19
- Vigne L, Martin EB (1996) Assam State Zoo supplies rhinos to West Bengal. International Zoo News 43(7):513-515, 1 fig
- Vincent J (1968-1971) Movement of square-lipped (white) rhinoceros *Ceratotherium simum simum*. Lammergeyer 9:23-25 (1968); 10:92 (1969); 11:80 (1970a); 12:73 (1970b); 13:55 (1971)
- Virchow H (1910) Die Wirbelsäule des Abessinischen Nashorns (*Diceros bicornis*) nach Form zusammengesetzt. Sitzungsberichte der Kg. Preussischen Akademie der Wissenschaften zu Berlin 1910(2):848-864, figs 1-9
- Vogel [?] (1817) Analyse des Urins vom Rhinoceros und vom Elephanten. Journal für Chemie und Physik (Schweigger), Nürnberg 19:156-165
- Vollers M (1989) Oh, give me a home where wild rhinos roam. Time Magazine, 26 June 1989:12-13
- Wackernagel H (1962) Von unseren Nashörnern. Zolli, Basel 8:5-14, 7 figs
- Wackernagel H (1985) Chitawan. Zolli, Basel 54:10-12
- Walker S (1994) The first real zoo in India...in the world? Zoos' Print, Coimbatore 9(7):1-2
- Webster B (1984) Foul-humored rhinos going to Texas Haven. New York Times, 24 March 1984
- Williamson T (1807) Oriental Field Sports. London
- Wolf J (1818) Abbildungen und Beschreibungen merkwürdiger Gegenstände, vol 1. Nürnberg
- Wood-Mason J (1875) Living specimen of Rhinoceros sondaicus in Calcutta. Proceedings of the Asiatic Society of Bengal 1875:229-230
- Wray L (1905) Rhinoceros trapping. Journal of the Federated Malay States Museums 1(2):63-65
- Wunderlich L (1892) Der Hornwechsel beim Indischen Nashorn. Zoologische Garten 33(12):373-374
- Yalden DW, Largen MJ, Kock D (1986) Catalogue of the mammals of Ethiopia, 6. Monitore Zoologico Italiano (NS) Suppl 21(4):31-103, figs 1-10
- Yamamoto S (1967) Notes on the breeding of black rhinoceroses *Diceros bicornis* at Kobe Zoo. International Zoo Yearbook 7:163
- Yule H, Burnell AC (1886) Hobson-Jobson. London
- Zainuddin ZZ, Tajuddin MA, Shamsuddin M, Suri M (1990a) The husbandry and veterinary care of captive Sumatran rhinoceros at Zoo Melaka, Malaysia. Malayan Nature Journal 44(1):1-19
- Zainuddin ZZ, Tajuddin MA, Samsuddin SM, Marid-Hassan ARK (1990b) Milk composition of the Sumatran rhinoceros (*Dicerorhinus sumatrensis sumatrensis*). Proceedings 2nd Congress Vet Assoc Malaysia 1990:121-122
- Zainuddin ZZ, Vidyadaran MK, Tajuddin MA, Rozyati TH, Peng BT (1990c) Observations on the skeleton of the Sumatran rhinoceros. Journal Vet Malaysia 2(1):59-61
- Zainuddin ZZ, Sheikh-Omar AR, Tajuddin M (1990d) Severe necrotizing enteritis in a Sumatran rhinoceros (*Dicerorhinus sumatrensis*). First Congress of the Veterinary Association of Malaysia, Kuala Lumpur
- Zukowsky L (1956) Kleine Hagenbeck-Erinnerungen. Zoologische Garten (NF) 21:9-24
- Zukowsky L (1965) Die Systematik der Gattung *Diceros* Gray, 1821. Zoologische Garten (NF) 30:1-178, figs 1-81

## THE RHINOCEROS IN CAPTIVITY

by L.C. Rookmaker

The earliest available records show that the rhinoceros was seen in the arenas in Rome and at the courts of the Chinese rulers about 2000 years ago. When zoological gardens and travelling menageries became fashionable in the 19th century, the rhinoceros was imported more frequently.

At least 2439 rhinoceroses have been exhibited around the world in 501 collections located in 79 countries. Each specimen which could be traced has been included in the present work, arranged by species and location.

The Indian Rhinoceros was first sighted in Europe in 1515 and, since then, 397 animals have been exhibited outside their native habitat. The Javan Rhinoceros has rarely been seen in captivity, and only 22 specimens could be traced. Ninety-six specimens of the Sumatran Rhinoceros have been seen. The African Black Rhinoceros has been presented by 775 specimens since 1870, and the White Rhinoceros by 1105 examples since 1930. This book details where each animal came from, when it arrived and how long it survived, and also how many animals were born. It is illustrated by 168 photographs which were taken in many of the collections throughout the world.

The author was assisted in his task of compiling this information by Mr. Marvin Jones, Dr. H.-G. Klös and Mr. R.J. Reynolds III. Marvin Jones, former registrar of the San Diego Zoo, reviewed the data of animals living in zoos throughout the world. Dr. Klös, former director of the (West) Berlin Zoo, who has a long-standing interest in the rhinoceros, assembled a comprehensive collection at his zoo, and initiated the studbooks for the two African species. R.J. Reynolds III completed the first lists of rhinoceroses held in captivity in the 1950s and continued to accumulate information on the subject.